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NATIONAL ELECTRAGIST

FORMERLY ELECTRICAL CONTRACTOR-DEALER

(ELECTRAGIST—Trade Mark)

Vol. 21, No. 4

Official Journal of National Association of Electrical
Contractors and Dealers

FEBRUARY, 1922

Century

Automatic Start Induction

POLYPHASE MOTORS



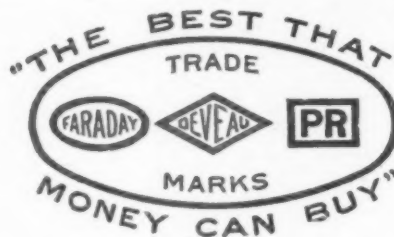
RATINGS: $\frac{1}{2}$ TO 60 H.P.

Have the additional starting torque so necessary—particularly in cold weather
—to overcome and break down initial friction resistance.

THEY KEEP A-RUNNING

CENTURY ELECTRIC COMPANY

St. Louis, Mo., U. S. A.



Faraday Bank Protection Systems



THE "HOLD-UP"—THE ALARM
(Photograph showing Faraday Bank Tellers' Foot Rail Contactor Model No. 760, in Actual Operation)

FARADAY BANK PROTECTION SYSTEMS are made for both Day Hold-Up and Combination Day Hold-Up and Night Burglary Protection in two (2) types—Electrically-Supervised Closed-Circuit and Open-Circuit Non-Supervised—for operation on 110 Volt D. C. Lighting Circuits, 110 Volt A. C. Lighting Circuits or Battery Circuits.

The apparatus has been especially designed and manufactured for Bank-Protection work and will fill requirements of the largest financial institution, or, at minimum expense, the needs of the smallest bank or trust company in a small town; these systems are also recommended and are coming into very general use for the jewelry trade and other lines of business where valuable merchandise is handled.

Write for Our New  Bank Protection Bulletin No. 33-A.

MANUFACTURED BY

STANLEY & PATTERSON, Inc.

GENERAL OFFICES AND FACTORY
WEST & HUBERT STS., NEW YORK, U. S. A.

CABLE ADDRESS: "ELEC LIGHT," NEW YORK.

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C. R. Corcoran
100 Boylston St.
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Electrical Sales Co.
Kenyon Bldg.
SAN ANTONIO
Kemp Haythorne
333 McKinley Ave.
HABANA
Arnesto N. Rodriguez
Abreu Bldg.



¶ Here's to 1922, may it be the biggest, best and most prosperous year the Electrical Trade has ever known.

¶ PLIADUCT will do its part for *more* and *better* wiring.



General Sales Office:
 NIAGARA SALES CORPORATION
 3-5 Waverly Place, New York City

MANUFACTURED BY SHORT ELECTRICAL MFG. CORP., PENN YAN, N. Y.

WILLIAM HANDLEY, PRESIDENT

PLIADUCT

THE RESOLUTION

Whereas, There is need of words to designate our business and activities; and

Whereas, It is proper that we should deliberately add to our vocabulary such properly derived words as are required; now therefore, be it

Resolved, That the following words be adopted as recognized by us with the meanings attached: (See opposite).

FARQUSON JOHNSON
Editor and General Manager

NATIONAL ELECTRAGIST

FORMERLY ELECTRICAL CONTRACTOR DEALER

(Trade Mark)

The Official Journal Published Monthly by the National
Association of Electrical Contractors and Dealers

THE NEW WORDS

Electragy—Name of the trade or business of Electrical Contractor-Dealer.

Electragist—A person conducting such a business.

Electragician—A person working at the business.

Electragize—A verb—to work at the business—or to provide electrical equipment.

Electragic—An adjective—relating to the business.

Electragian.

Electragial.

JAY S. TUTHILL, News Editor
G. W. HAUPTLI, Advertising

Volume 21

FEBRUARY, 1922

Number 4

TO OUR READERS

All matter for publication must be in the hands of the Editor by the 10th of the month preceding publication.

All changes in our mailing list should be received by us two weeks prior to date of publication of the issue with which the change is to take effect.

TO OUR ADVERTISERS

Changes in advertisements and all advertising copy should reach our office not later than the TENTH OF THE MONTH previous to the date of issue.

SUBSCRIPTION RATES

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Electrical Contractors and Dealers.

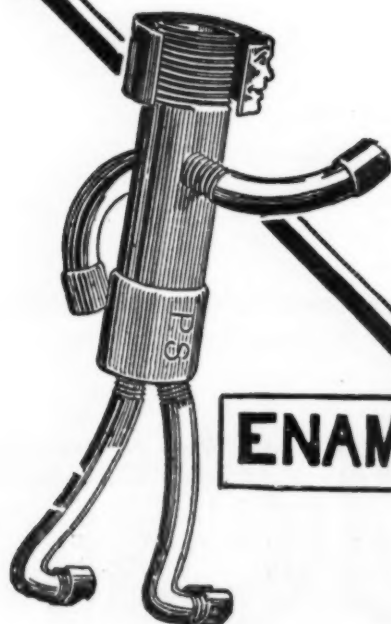
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Editorial and Business Office:
15 West 37th Street, New York City

Table of Contents and Advertising Index Next to Last Page

PITTSBURGH STANDARD THREAD PROTECTED ENAMELED CONDUIT PATENTED



REACHES the job ready to install—that fact brings a saving of actual dollars on every installation where Pittsburgh Standard is used.

No more running dies over pipe ends on enameled conduit; and the laborious costly work of reversing couplings is banished forever—P. S. reaches the job ready to install.

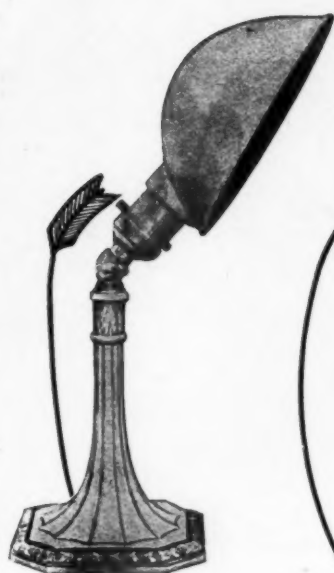
The threads are clean, sharp and true—coated with just sufficient enamel to protect from rust. P. S. will pay you best.

ENAMELED METALS COMPANY.

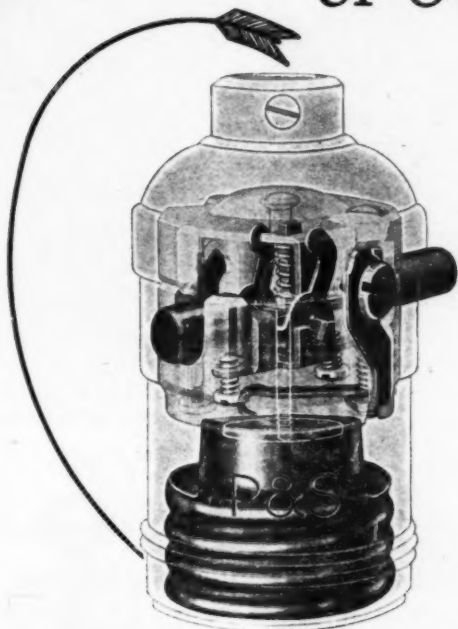
PITTSBURGH, PA.

Forty-eight Years

Five Times a Day
or 87,600 Times



Quality that
Lasts



The
Popular
Push-Button
Socket

For
Portables
and Dainty
Boudoir
Lamps



P&S S-34 Push-Button
Body—Operated 87,600
times at 3A.-250V.

This is equal to 48 years at the average
of five operations a day

Order P&S Push-Button Sockets Now
Prompt Delivery

Made by

Pass & Seymour, Inc.

SOLVAY, NEW YORK, U. S. A.





Announcing the Arrow Toggle Switch

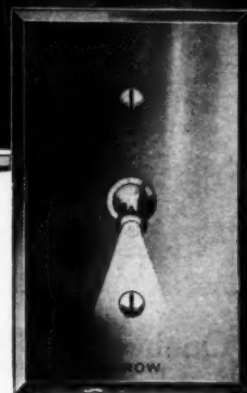
ANOTHER Arrow product that adds to the convenience of modern wiring devices.

The Toggle Switch often provides a convenient way to switch a light on or off when the usual method of pushing a button would be inconvenient.

Arrow Toggle Switches can be furnished with luminous tip handles if desired.



*Catalogue
No. 6144*



*Arrow Toggle Switch
Catalogue No. 6176-6721*

THE ARROW ELECTRIC CO.
HARTFORD, CONN.

ARROW

The complete line of Wiring Devices



The opal reflector and diffusing bowl of Denzar produce an even intensity, without glare or distracting shadows, on both horizontal and vertical surfaces.

ROBBINS & MYERS INSTALLS DENZAR

Known for nearly a quarter of a century as a manufacturer of thoroughly reliable fans and motors, and possessing a reputation for exceptional ability in selecting men, material and equipment, it is significant that The Robbins & Myers Company should select Denzars and other Beardslee lighting equipment for their new office building at Springfield, Ohio.

Two hundred and thirty-five Compact Ceiling Type Denzars were used for the general and private offices and nine cast ornamental semi-indirect brackets for the reception room. This equipment was sold to the Danis-Hunt Construction Company of Dayton. The Hatfield Electric Company of Indianapolis made the installation, and W. E. Russ, also of Indianapolis, was the architect.

Denzars have been installed in the offices of many nationally known firms, while thousands of installations have been and are being made in stores, offices, schools, banks, halls, churches, and municipal buildings. The dealer who has not learned the nine distinctive features of Denzar is losing sales on the most efficient commercial lighting unit known. Let us help you get started, just write:



BEARDSLEE CHANDELIER MFG. CO.

Manufacturers of a complete line of chandeliers and bronzes for every lighting requirement.

231 South Jefferson Street

Chicago, Illinois



DENZAR

The Unit of Day Brightness

How Proper Use of the Jobber Makes Your Dollars Earn More

Some of the products our 48 Distributing Houses carry in stock:

Tapes and Compounds
Wire, bare and insulated
Wiring Devices
Condulets
Metal Moulding
Flexible Cords
Insulating Material
Insulators, all types
Fuses, all types
Switches, all types
Electric Hammer Drills
Ventilating (Exhaust) Fans
Motors
Sunbeam Mazda Lamps
Flood Lights
Utility Flood Lights
Poles
Crossarms
Pole Line Material
Inter-phones
Dry Batteries
Electrical Housekeeping
Appliances
—in fact everything
electrical

While you have to stock a big variety of items to do business, you haven't got to carry big reserve stocks, too. That only ties up capital, and eats up profits.

Besides—it's the function of the jobber to carry reserve stocks.

Let our nearby Distributing House stock be your reserve. All you need then is a reasonable, representative stock.

By using our Distributing House's stock you keep only a minimum of your capital invested and you get quicker turnover. That will increase your profits, for it's easy to see how the dollar that earns ten cents at one turnover will earn another dollar if it is turned over ten times.

*Let us help you get these increased profits.
Get in touch with our nearest house.*

**A
National
Electrical
Service**

Western Electric Company

OFFICES IN ALL PRINCIPAL CITIES



Inside Information

Here is laid bare the reason why HEMCO Twin-Lite Plugs give such good service and long service—why they make profits and build business.

This HEMCO Twin-Lite, sawed through, shows how it is moulded in one piece of Condensite—unbreakable—not affected by heat or moisture—the highest grade plural plug in the world! HEMCO Twin-Lite Plugs do more than pay good profits—they keep those profits coming in all the time—because they're easy to sell and they turn over fast.

And that's the important thing about a specialty—it's not what you pay for it, but what it pays *you*!

HEMCO Twin-Lite Plugs sell, and stay sold. They give service that makes satisfied customers.

There's another reason why HEMCO Twin-Lite Plugs sell fast—because unusually attractive display material is furnished with them. If you haven't the new Twin-Lite display material, mail this coupon and it will be sent free.

GEORGE RICHARDS & Co.

Dept. 24

557 W. Monroe Street, Chicago

GEORGE RICHARDS & CO.
341 E. 40th Street—New York City

Pacific Coast Agents—GEO. A. GRAY CO.
589 Mission St., San Francisco

New England Agents
PETTINGELL-ANDREWS CO.—Boston, Mass.

Sole Export Distributors—CORNELIUS-SCOTT-SARGEANT, INC.
29 Broadway, New York City

HEMCO
TWIN-LITE
HEMCO is on Every Twin-Lite
MADE OF CONDENSITE
WILL LAST A LIFE TIME

GEORGE RICHARDS & CO.

Dept. 24, 557 W. Monroe St., Chicago, Ill.

Please send me your new display material, with prices on HEMCO Twin-Lite Plugs.

Name.....

Address.....

City.....State.....

Cash in on Store Lighting Now

Now is the time to go after store lighting with an eye for profits. The two-color advertisement of National MAZDA lamps in the February 18th issue of the *Saturday Evening Post* features store lighting and paves the way for you to sell good lighting to merchants.

For the big job in 1922 is selling, and the goods must be seen to be appreciated. There must be light or there won't be trade, and that light must be sufficient in quantity, properly placed, and rightly shaded to make selling quick, sure and easy. Most merchants accept this as a self-evident fact, yet fail to see that their own lighting is inadequate. It's up to the live contractor-dealer to detect these shortcomings and to sell adequate installations.

It's easy to light a store properly. *First*—Use 300-watt MAZDA Daylight lamps, or 200-watt MAZDA C lamps. MAZDA Daylight

lamps are preferable under most circumstances because they show colors more accurately and their light blends more agreeably with natural daylight. *Second*—The space between lighting units should not greatly exceed ten feet. *Third*—The lamps should be properly shaded. Shades and reflectors, when made of glass, should be of dense white glass rather than clear or frosted glass, and should entirely surround or enclose the lamps. *Fourth*—Lamps and shades should be cleaned once a month. For most stores the above rules will provide excellent illumination.

Get this lighting business Mr. Contractor-Dealer. Make a list of the stores in your town that need better lighting and call on all of them. Sell them the lighting they need and on which you will make a handsome profit. Cash in on store lighting now. National Lamp Works of General Electric Company, Nela Park, Cleveland, Ohio.



Each of these labels represents a Sales Division equipped to give a complete lighting service



NATIONAL MAZDA LAMPS



THE beautiful design and finish of the R & M Fan appeal strongly to every fan purchaser. The gracefully formed, smooth drawn steel motor frame and base, the polished brass blades, the felt padded base, and the flawless enamel finish, reflect the quality built into the fan and make easy sales for the dealer.

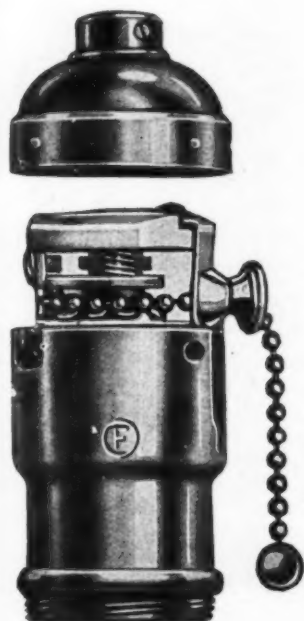
And in every respect—performance, durability and efficiency—the R & M Fan measures up to its appearance. When the dealer sells R & M Fans, he knows that his customers will be as highly pleased with the service they give, as they are with the attractive appearance of the fans.

THE ROBBINS & MYERS COMPANY

SPRINGFIELD, OHIO

BRANTFORD, ONTARIO

Robbins & Myers Fans



NO. 170



Especially adapted for service
where conditions are most severe

E. H. Freeman Electric Co.
TRENTON, NEW JERSEY



PETE SAYS:—

Treat it rough!
Jump on it! Hammer it!
Kick it!
Tie it in a knot!

It won't hurt **DURADUCT** because a little pressure of the fingers puts it back into shape so that you can fish through it as easily as ever.

DURADUCT is the original Single Wall conduit with a real Roller-Bearing Wireway.

Peter S. Klees.

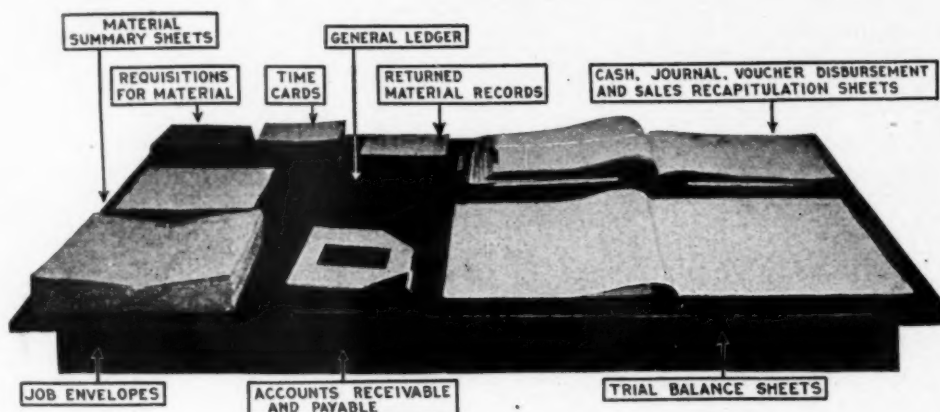
The "S" stands for "Spang." Pete isn't smiling because he is happy over that name, but because he is bound to be happy selling **DURADUCT**.

TUBULAR WOVEN FABRIC CO.
PAWTUCKET, R. I.

The Electragist Employing a Bookkeeper Should Use the

Standard Accounting System

*Here is the
complete set
just as
it looks
spread out
on an
ordinary
office table*



This is the system adopted by the National Association of Electrical Contractors and Dealers, endorsed by the National Electrical Credit Association, and approved by other branches of the electrical industry.

The Electragial Business Without a Bookkeeper Should Use the

New Business Record

This is an easy and simple way of keeping your accounts without the aid of a bookkeeper. Everything about it is plain and easily understood from start to finish. It consists of only eight forms, and these show the money taken in and paid out; the bills to be collected and to be paid; the general expense, investment and stock. There also is a binder for records, and a simple memo book.

IT TELLS YOU

How much money you have; how much you owe; how much money is due you; how much stock on hand; how much stock you buy; how much you sell; how much it costs you to do business; how much profit you make; or how much you lose; and all other necessary facts regarding your business.

DEPEND ON IT

It is handy, and always ready for you to use; it is reliable and accurate; it saves you time, money, and worry; it settles disputes and saves money for you; it helps you straighten out matters with your banker, your jobber, and the tax collector; it is a necessary factor in your business.

**Look Into this Matter Today and Figure on Starting Your Business Record or
Standard Accounting System**

FULL INFORMATION SENT UPON REQUEST BY THE

National Association of Electrical Contractors and Dealers

15 West 37th Street, New York City

*Every
Electrical Appliance
Owner
is a Possible Customer
for the new Hubbell Te-Cap*



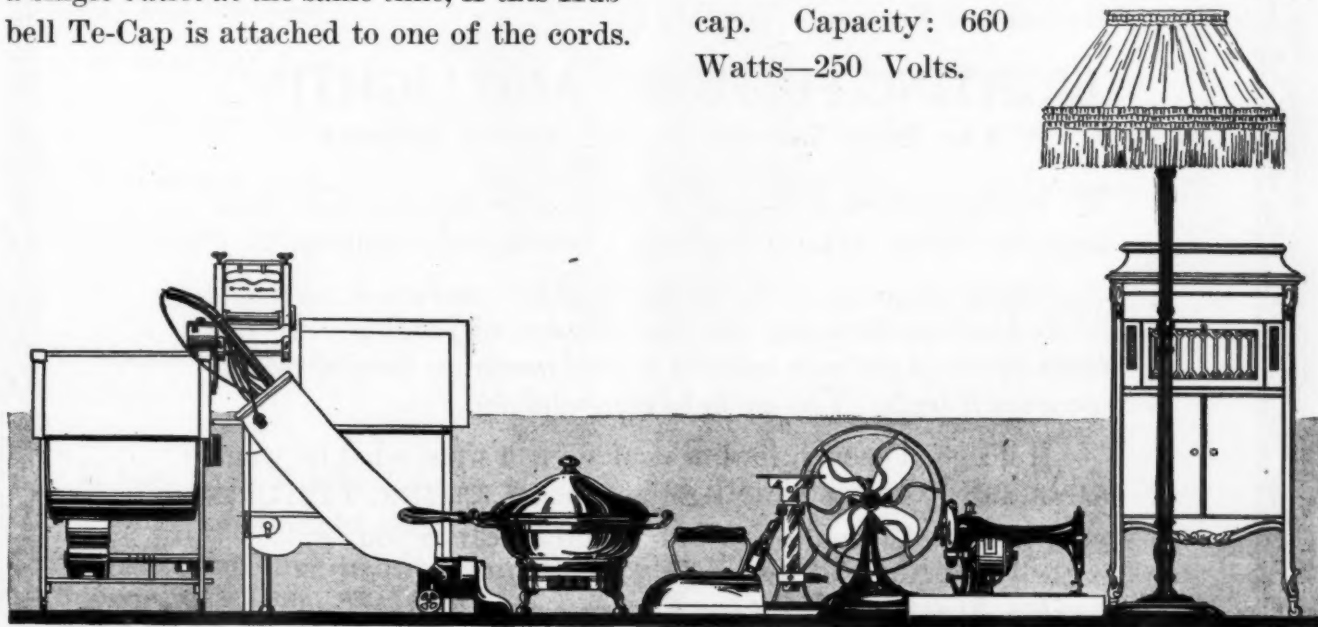
HUBBELL
TE-CAP
List No. 6771
1 1/2 Actual Size

IT takes the place of the ordinary cap on the lamp or other cord, fits any Convenience Outlet, and provides two Te-Slots, into which may be plugged the parallel or tandem blades of any other cap.

Your customer can run two machines from a single outlet at the same time, if this Hubbell Te-Cap is attached to one of the cords.

Here is a device you can feature. It does away with make-shift, and permits the use of more appliances—opens up new sales possibilities.

Hubbell Te-Cap is the only current tap which may be used with standard flush or wall receptacles. Attached like any ordinary cap. Capacity: 660 Watts—250 Volts.



HARVEY HUBBELL INC.
ELECTRICAL SPECIALTIES
BRIDGEPORT CONN. U.S.A.



NEW YORK

SAN FRANCISCO

2207-U

CHICAGO



Lighting Fixtures and Accessories

How to Sell Them—How to Display Them—How Other Dealers Do It—Valuable Merchandising Tips and Installations are Featured Monthly in

LIGHTING FIXTURES AND LIGHTING

The Trade Journal of the Lighting Industry

M. V. Rutherford, President of Progressive Electric Co., Minneapolis, Minn., says of Lighting Fixtures and Lighting:

"Your magazine is the snappiest, most condensed magazine of its kind we have yet had the pleasure of reading. In this business world we have not time to read numerous details. What we want is facts. You are to be congratulated."

If it's good enough for this dealer—if it's just what he wants as an aid in selling more lighting, then LIGHTING FIXTURES AND LIGHTING should be worth \$2.00 a year to you.

Subscribe Now—Use the Coupon

Lighting Fixtures & Lighting

The Trade Journal of the Lighting Industry

175 FIFTH AVENUE

FLATIRON BUILDING

NEW YORK, N. Y.

TEAR OFF AND SEND NOW!

Lighting Fixtures & Lighting,

1011-1012 Flatiron Bldg., New York:

You may enter our subscription to LIGHTING FIXTURES & LIGHTING for the next twelve months beginning with _____ issue for which we enclose \$2.00.

Name _____

Address _____

City _____

State _____

Dec. 1921.

WEBER DEPENDABLE WIRING DEVICES

The Only Sensible Scheme FOR THE Retail Merchandising of Plug Fuses

No Special Packing. No Increased Price.

Sell every
customer
ten fuses—
two 30's for
the entrance
cut-out, and
eight 10's
for the
branch circuits



One card
enclosed
FREE
in each
carton (50)
of 10-ampere
and
30-ampere
fuses

If you have WEBER fuses in stock, write us the name of the jobber from whom you bought them and we will send you a supply of cards so that you can at once profit from the advantage of this novel selling scheme and not have to wait for new shipments to come through from the factory.

On your next order for plug fuses, specify WEBER

CONSULT OUR 1921 CATALOG

HENRY D. SEARS

General Sales Agent

80 BOYLSTON STREET
BOSTON 11, MASSACHUSETTS

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Ernest Freeman-----1912-1914
*Deceased.

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T. M. Templeton
34 Cherry Street, Detroit, Mich.

UNIVERSAL DATA AND SALES BOOK

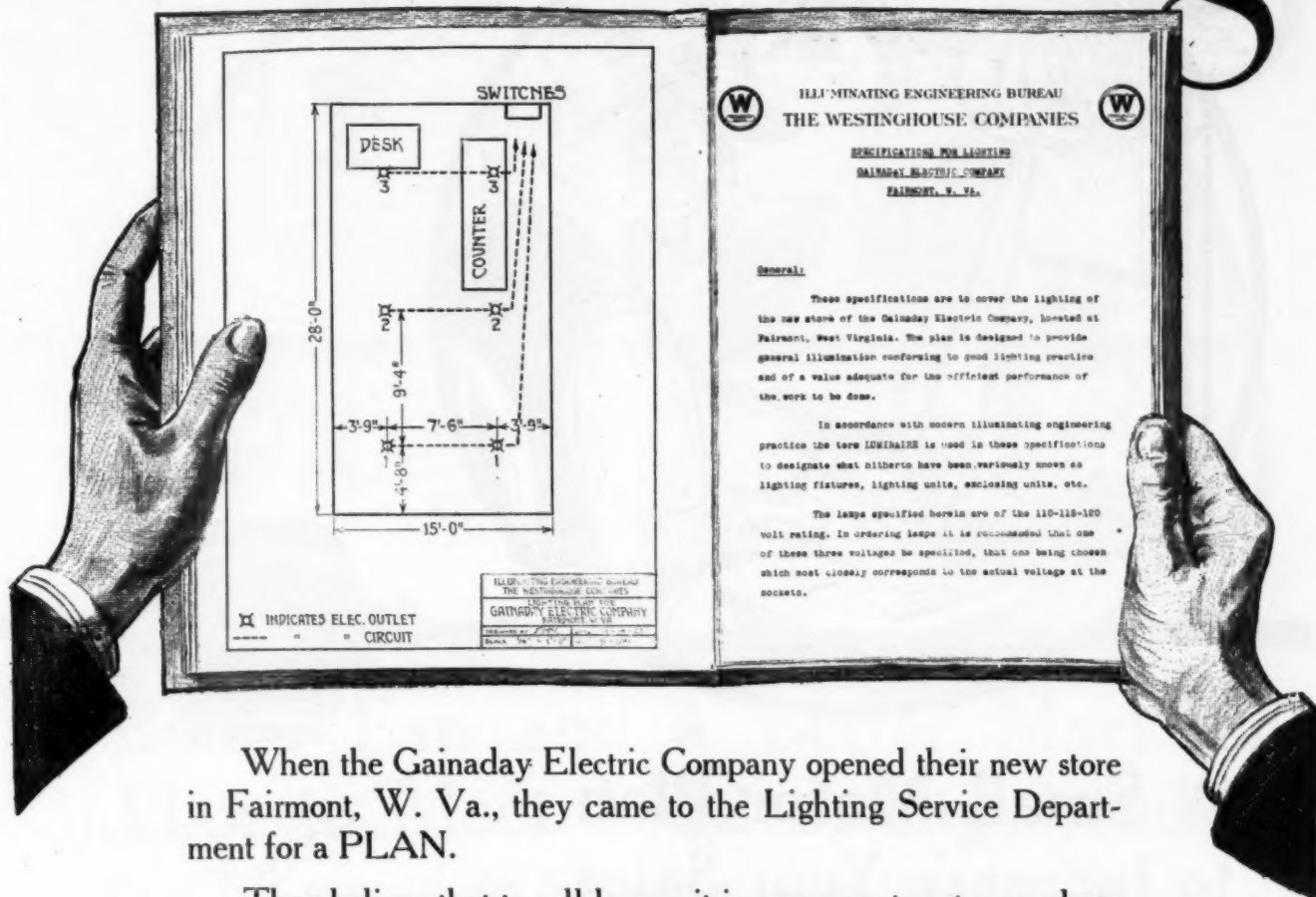
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10 S. Second Street, Memphis, Tenn.

U. S. CHAMBER OF COMMERCE

Robley S. Stearnes
336 Camp Street, New Orleans, La.

ANNUAL CONVENTION, CINCINNATI, O., OCTOBER 11, 1922. EXECUTIVE COMMITTEE MEETING, MARCH 13, 1922

The Plan's the Thing



When the Gainaday Electric Company opened their new store in Fairmont, W. Va., they came to the Lighting Service Department for a PLAN.

They believe that to sell lamps, it is necessary to set a good example by having their own premises well lighted.

Whenever you have a lighting problem, send in the data to our Lighting Service Department, who will submit, without charge, a complete plan.

THE PLAN'S THE THING!



WESTINGHOUSE LAMP COMPANY

165 BROADWAY, NEW YORK, N. Y.

Sales Offices and Warehouses Throughout the Country

For Canada: CANADIAN WESTINGHOUSE CO., Ltd., Hamilton, Can.

Westinghouse



A Small Motor Plan to Increase Your Sales

It's the idea of selling Westinghouse small motors for the many little tasks that are to be done in store, office and home.

Your customers will quickly enthuse over the efficient way this inexpensive little motor does its work.

You can quickly show your neighborhood grocer how Westinghouse motors will grind his coffee—how they will chop meat for the butcher or polish silver and freeze ice cream at home.

These sales are easy. A simple sales plan has been outlined for you with complete dealer helps.

Our jobber has full details.

Westinghouse Electric & Manufacturing Company
East Pittsburgh, Pa.

Sales Offices in All Principal American Cities

Important Features of Design

- Splash-proof
- High starting effort
- Will withstand overloads
- No brushes, or sliding contacts
- No alterations are required to equip the driven machine for a-c. or d-c. service
- Either two or four bolts used in mounting
- Either wall or ceiling mounting
- Thorough ventilation
- Large shaft bearings and grease cups

Westinghouse



A Better Fan and a Better Marketing Plan to Meet 1922 Selling Needs

Tie-in your store with the Westinghouse 1922 national fan campaign. Avail yourself of every selling help. Get the full benefit of each buying impulse of your customers.

This year the way is paved to easier fan sales than ever before. A better product plus maximum selling assistance will produce real results for dealers who co-operate.

Our Agent-Jobber will help you get the best results. Ask his advice today.

The 1922 Fan Marketing Plan comprises

- A comprehensive national campaign.
- A moving window display.
- A bigger and better dealer catalog.
- A new customer catalog.
- Complete literature to reach every type of fan prospect.
- Illustrated letterheads, lantern slides, dealer ads, counter cards.
- Blotters, folders, etc.
- The Westinghouse monthly magazine, **CONTACT**, containing complete selling plans.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY

Newark Works, Newark, N. J.

Sales Offices in All Principal American Cities

Westinghouse



The Rectigon Sales Field Is Still Untouched—Go After These Sales Now!

The majority of automobile owners still go to the service station for battery charging. They do this because they do not know that there is an inexpensive device—the Westinghouse Rectigon Battery Charger—that will do their battery charging in their own garages. And do it with a minimum of effort.

Nor is the auto owner the only prospect for Rectigon sales. You can sell Rectigons to the Radio enthusiast, the motor boat owner, the doctor and dentist for electro-therapeutic batteries and for any other use where storage batteries are used.

Show these prospects what the Rectigon will do. Use the selling points here listed:

1. No danger of battery going dead on road when Rectigon is used.
2. No danger of overcharging.
3. No bother of disconnecting battery to recharge.
4. No attention required when charging—the Rectigon is trouble-proof.
5. No knowledge of electricity is necessary to use a Rectigon effectively.
6. The Rectigon is efficient, effective and economical.
7. The Rectigon is light in weight, compact and very rugged.

Use your show window and local advertising to push sales. You will be surprised at the number of Rectigon sales that you can make in a short selling campaign.

Ask our Agent-Jobber for more information.

Westinghouse Electric & Manufacturing Company
East Pittsburgh, Pa.

Westinghouse Agent-Jobbers

ATLANTA, GA., Gilham Schoen Electric Co.
BIRMINGHAM, ALA., The Moore-Handley Hardware Co.
BLUEFIELD, W. VA., Superior Supply Co.
BUFFALO, N. Y., McCarthy Bros. & Ford.
BUTTE, MONT., The Montana Electric Co.
CHICAGO, ILL., Illinois Electric Co.
CINCINNATI, OHIO, The Johnson Electric Supply Co.
CLEVELAND, OHIO, The Erner Electric Co.
DENVER, COLO., Mine & Smelter Supply Co.
DETROIT, MICH., Commercial Electric Supply Co.
EL PASO, TEXAS, Mine & Smelter Supply Co.
EVANSVILLE, IND., The Varney Electrical Supply Co.
HOUSTON, TEXAS, Tel-Electric Co.
INDIANAPOLIS, IND., The Varney Electrical Supply Co.
JACKSONVILLE, FLA., Pierce Electric Co.
KANSAS CITY, MO., Satterlee Electric Co.
LOS ANGELES, CAL., Illinois Electric Co.
LOUISVILLE, KY., Tafel Electric Co., Inc.
MEMPHIS, TENN., Riechman-Crosby Co.
MILWAUKEE, WIS., Julius Andrus & Sons Co.
NEW HAVEN, CONN., Hessel & Hoppen Co.
NEW ORLEANS, LA., Electrical Supply Co.
NEW YORK, N. Y., Northwestern Electric Equipment Co.
OKLAHOMA CITY, OKLA., United Electric Co.
OMAHA, NEB., The McGraw Co.
PHILADELPHIA, PA., H. C. Roberts Electric Supply Co.
PITTSBURGH, PA., Robbins Electric Co.
PORTLAND, ORE., Fobes Supply Co.
RICHMOND, VA., Tower-Binford Electric & Mfg. Co.
ROCHESTER, N. Y., Rochester Electrical Supply Co.
SALT LAKE CITY, UTAH, Intermountain Electric Co.
SAN FRANCISCO, CAL., Electric Rwy. & Mfg. Supply Co.
SCRANTON, PA., Penn Electrical Engineering Co.
SEATTLE, WASH., Fobes Supply Co.
SIOUX CITY, IOWA, The McGraw Co.
SPOKANE, WASH., The Washington Electric Supply Co.
ST. JOSEPH, MO., Columbian Electrical Co.
ST. LOUIS, MO., Central Telephone & Electric Co.
ST. PAUL, MINN., St. Paul Electric Co.
SYRACUSE, N. Y., H. C. Roberts Electric Supply Co.
TAMPA, FLA., Pierce Electric Co.
TULSA, OKLA., United Electric Co.
WICHITA, KANS., United Electric Co.

Westinghouse



The Tumbler Heater is the latest Westinghouse Appliance

This, the newest Westinghouse device, will be one of the most active sellers in your entire stock.

Many times a day, each of your customers wants just a little hot water—usually in a hurry.

The Tumbler Heater supplies a tumbler full of boiling liquid in three to four minutes.

This appliance is practical as well as convenient. The switch is handily located so that the current can be turned off as the heater is lifted from the glass. It is so designed that its weight will not cause the glass to tip over.

The Tumbler Heater has many points of appeal. Each one means sales. Don't overlook the fact that convenience outlets are needed to make appliances really convenient. Boost the idea to your customers.

Westinghouse Electric & Manufacturing Company
Mansfield Works, Mansfield, Ohio
Sales Offices in All Principal American Cities

Westinghouse



WESTINGHOUSE-FRANKEL SOLDERLESS CONNECTORS

A Splice a Minute

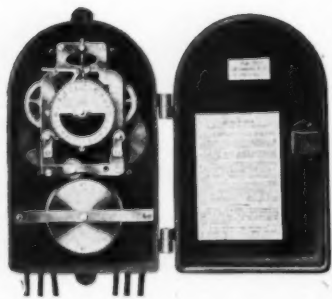
Here is a sectional view of a Westinghouse-Frankel Two-Way Solderless Connector which shows how closely the conductor is gripped.

The use of these connectors means the end of all splicing difficulties. The connectors do not require solder; they can be rapidly installed or removed; they are constructed to connect two or more sizes of conductors and they can be used repeatedly.

Westinghouse Electric & Manufacturing Co.,
East Pittsburgh, Pa.
Sole Agent in the United States




Hartford Time Switches



Infallible Monitors for Store Window Lighting, Electric Signs and Street Lighting Circuits.

A Capacities, Various Types, Rugged Construction, Dependable in Operation.

NOW AVAILABLE

A. HALL BERRY

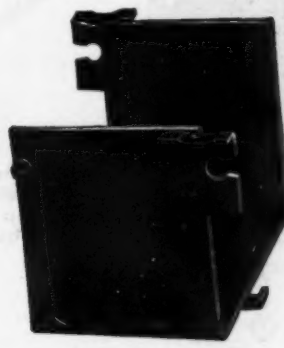
71-73 MURRAY ST.
NEW YORK, N. Y.



No. 1101



Partly open



Spacer No. 1110

8 Gangs in 80 Seconds

With this New Sectional Wall Case

The new H & H Sectional Wall Case divides in the middle.

A single-piece Spacer, or any number of spacers, fit in between the two parts.

Tighten the two screws, and the gang is as rigid as a box stamped in one piece, because all parts are accurately made and fit together, perfectly—and in alignment.

And as many as 8 gangs can be assembled in 80 seconds—a minute and a third!

Surfaces are smooth, inside and out.

The H & H Wall Case is equally satisfactory for loom or BX cable by using the H & H BX Clamp No. 911.

The unique design eliminates numerous parts to be handled or thrown out by the contractor that would otherwise remain in the stock of the dealer.

A standardized device that saves time in handling, reduces time of installing and creates satisfaction for the dealer and contractor.

A sample, consisting of a single box and a spacer, will be sent for 25c. Ask for complete details.

THE HART & HEGEMAN MFG. CO.

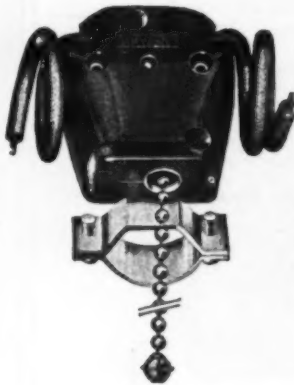
Hartford, Conn., U. S. A.



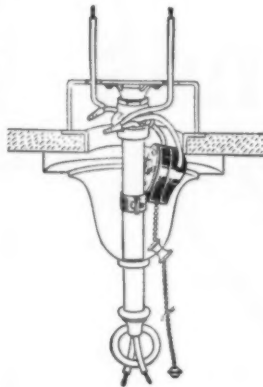
H & H
SWITCHES



Bryant Makes a Wiring Device for Every Electrical Need



NO. 663
Composition Canopy Switch with metal pipe clamp for vertical mounting.



NO. 663
Installed in Canopy. The bracket can be reversed to support the switch from above.

Four Bryant 660 watt-250 volt canopy pull switches recently introduced have been enthusiastically received by the trade.

The simple, rugged mechanisms are protected by heavy "Bakelite" bodies, supported to the fixture stem or the canopy by brackets, of which there are four types.

They are very compact and will fit almost any style of canopy.

List. No.	List Price.	Sched.	Description
655	\$0.75	H2	Composition Canopy Switch with metal pipe clamp for horizontal mounting.
656	\$0.75	H2	Composition Canopy Switch with metal angle bracket for vertical mounting and adjustable for shallow or deep boxes.
662	\$0.75	H2	Composition Canopy Switch with metal bracket having threaded bell mouth for direct mounting in canopy.
663	\$0.75	H2	Composition Canopy Switch with metal pipe clamp for vertical mounting and reversible so that the pull may be straight up or straight down.

All National Electrical Code Standard. Carton 10, Standard Package 100 which may consist of an assortment of unbroken cartons.

Send for complete information.

THE BRYANT ELECTRIC COMPANY

BRIDGEPORT, CONN.
NEW YORK CHICAGO SAN FRANCISCO



Spiralweave

Wires and Cables

ARE MADE LIKE AND WEAR LIKE FIRE HOSE

Portable cables suffer the same rough treatment as fire-hose. Dragged about over rough surfaces and sharp edges, through mud and water, bruised by falling objects and run over by heavy trucks, its covering must be exceptionally enduring.

"Spiralweave" is the same weave as that used in fire hose. The warp strands run lengthwise of the wire giving great longitudinal strength while the filler strands run spirally around the wire, giving great resistance to the lateral wear that comes from dragging the wire sideways. Such a covering does not stretch and bulge as a braided covering.

"Spiralweave" wires and cables are also made for other applications such as Tree Wire, Mine Power and Lighting Cables and Mine Shaft Cables where longitudinal strength and wear resistance is needed.

We will be glad to send you data describing "Spiralweave" Wires and Cables as well as other Hazard electric wires.

HAZARD MANUFACTURING COMPANY

NEW YORK PITTSBURGH BIRMINGHAM CHICAGO
DENVER WILKES-BARRE, PA.
Makers of Quality Wire Rope since 1848.

HAZARD RUBBER INSULATED Wires & Cables





THE Appleton Electric Company announces that they have acquired the patents and sole manufacturing rights to all the electrical and automotive specialties formerly owned by the Anderson Electric and Equipment Company, of Chicago.

These include the **"AutoReelite"**—the *Spotlight on a Reel*—widely and favorably known among the motorists of America and other countries as the **only** combination Spotlight, Trouble-light and Portable light on a reel, also the **"Reelite"**—the ideal flexible industrial lighting unit.

With the vastly increased resources and manufacturing facilities afforded by our large plant, we will endeavor to maintain and improve the high quality of these products and continue the manufacture along with our regular line of **"Uni-lets"**—Steel Conduit Fittings—and other well-known Appleton Products.

APPLETON ELECTRIC COMPANY

GENERAL OFFICES AND FACTORY

1701-13 Wellington Avenue at Paulina
CHICAGO



An Old Egyptian Proverb Says—

*"Life is composed of two parts—
That which is gone "A Dream" and
that which is to come "A Wish."*

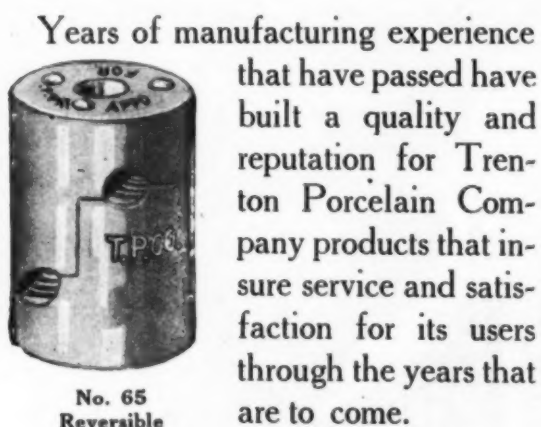
Business, too, consists of "Dreams" and "Wishes," which are but tools and in accordance to the wisdom with which they are handled, fashion the success or failure of your business.

Many large users of standard electrical porcelains have traded the lessons of the past for the greater success and prosperity of the present and future.



No. 1 Jiffy

They have done so through standardizing on Trenton standard porcelain, and many others will do the same.



No. 65
Reversible

Years of manufacturing experience that have passed have built a quality and reputation for Trenton Porcelain Company products that insure service and satisfaction for its users through the years that are to come.

TRENTON PORCELAIN CO.

TRENTON, NEW JERSEY

Mr. Contractor-Dealer---

Does this familiar "cut" represent your idea of "Up-to-date Wiring"?

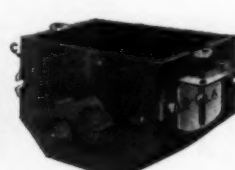


Let's hang the "crepe" on this kind of a wiring job.

What are you doing to convince the architects and owners of the economy and advantages of doing the job *right* by providing more "convenience outlets"? The chandelier must go into the discard as a medium for supplying current to electrical devices.



No. 401
Floor Outlet
with Nozzle



Improved
Switch
Box



No. 477
Floor Outlet
Non-Adjustable

More *Floor Outlets*, *Receptacles*, and *Switch Boxes* must be installed, if current consuming devices are to be used daily as necessities, instead of ornaments or occasional luxuries.

Write for Catalog 33-E and
souvenir pencil with "thick lead"

Steel City Electric Co.

1207-1223 Columbus Avenue
PITTSBURGH, PA.

The **STRENGTH** of the Mallet



Up the mountain the great Mallet climbs, with a hundred or more heavily laden freight cars in tow. Of course it's horsepower that does the trick, but back of the horsepower is *strength*—sheer structural strength. Whenever there is a big job on hand, there you will find *strength*.

We build "Union" Renewable Fuses the Mallet way—for heavy work. A "Union" Renewable withstands the shock of blowouts longer than any other fuse made because it has stamina and ruggedness, through and through.

One glance at the thick, durable, fire-resisting casing, the extra heavy ferrules and washers (all beautifully machined and snugly joined to withstand the blow-out shock) will prove to you the strength of a "Union" Renewable Fuse.

And in actual tests—discarding all idle claims and theories—a "Union" Renewable will demonstrate its superior staying powers over a host of would-be competitors. Isn't that the kind of a fuse you want, and ought to use—the kind that saves you money by going to the very last limit of renewability.

"Union" Fuses, both Renewable and Non-Renewable, are for sale by all leading jobbers and dealers. They are approved in the very highest degree by the National Board of Fire Underwriters.

**The "Union" saves
more than ANY
other renewable fuse**

New 96-page Catalog Free
on Request.

**Chicago Fuse
Mfg. Co.**

Manufacturers of Switch and
Outlet Boxes, Cut-Outs, Fuse
Plugs, Automobile Fuses, Re-
newable and Non-Renewable
Enclosed Fuses.

Chicago New York

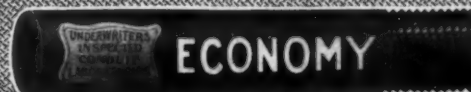


UNION

**RENEWABLE &
NON-RENEWABLE FUSES**

National Products

"All you require—When you Wire"



**The National Line includes
everything for interior wiring
—right to the point of service.
It is the one complete line of
wiring materials.**



National Metal Molding Co.

PITTSBURGH, PA.

OFFICES IN ALL PRINCIPAL CITIES

RAVEN CORE—A Rubber Covered Wire of Distinction!

Made by a house of standing.

Specified by all the leading architects.

Used by the Contractors who do the better grade of work.

Can you afford to overlook it?

NEW YORK INSULATED WIRE CO.

Main Office: NEW YORK

Factory: WALLINGFORD, CONN.

Agencies and Branches:

DENVER

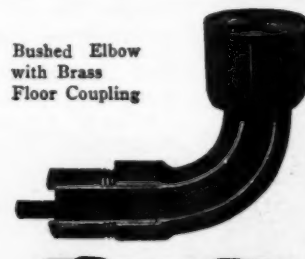
SAN FRANCISCO

CHICAGO

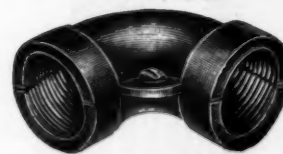
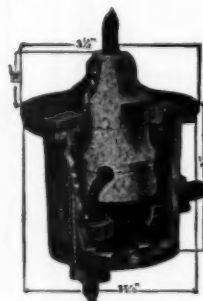
BOSTON



"Bulb" Tee with Brass Floor Coupling



Bushed Elbow
with Brass
Floor Coupling



A Few of the New Fittings Shown In Our New Catalog

DID YOU GET ONE? IF NOT, WRITE US

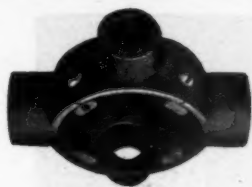
THOMAS & BETTS CO.

63 Vesey Street

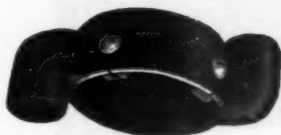
New York, N. Y.

Chicago Office: 612-626 W. Jackson Blvd.

W. J. DOHERTY, Mgr.



Type 3400



Type 7273

What the 1921 Slogan Did!

The 1921 "Convenience Outlets for Homes" campaign, put a bug in the factory manager's ear.

If it's good business for the home owner to provide extra outlets for the sake of convenience, it's good business for the manufacturer to do it for the sake of economy.

That's sound logic. But the factory manager never knows when or where he will need more outlets. Any attempt to install them in advance is more than likely to prove wasteful.

There's a quick and easy solution to his problem that perhaps he knows nothing about. It's a flexible conduit system that provides for his immediate needs and at the same time all future extensions, additions and changes—the ADAPTi System.

The contractor who recommends ADAPTiBOXES is serving his customers' best interests while making additional business easy to secure, because changes or extensions in an ADAPTi System are made at no greater cost than a like amount of original installation.

—also, a Complete Line of Covers for ADAPTiBOXES

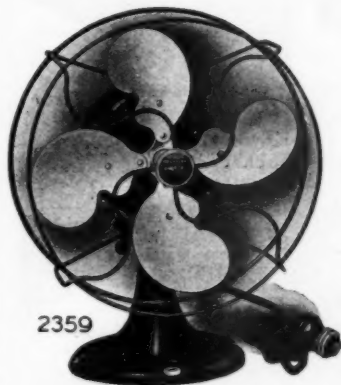
There are ADAPTiBOX Covers to meet practically every demand for use in connection with ADAPTiBOXES. These covers are designed to permit the contractor to use any standard wiring device on the market.

THE ADAPTi COMPANY, CLEVELAND

ADAPTiBOXES

The Newest Emerson Fan

"Emerson Jr."



2359

An induction fan

no brushes—no moving contacts.

Emerson quality all through!

Wearing parts equal to any Emerson

A popular-priced fan with the Emerson 5-year Factory Guarantee

Samples of the new "Emerson Junior" with bulletins, prices, sales helps and season contracts on the complete Emerson Line now ready. Get them!

Ask your jobber or

The Emerson Electric Mfg. Co.

2018 Washington Ave.,

ST. LOUIS, MO.

Eastern Address: 50 Church Street, New York City

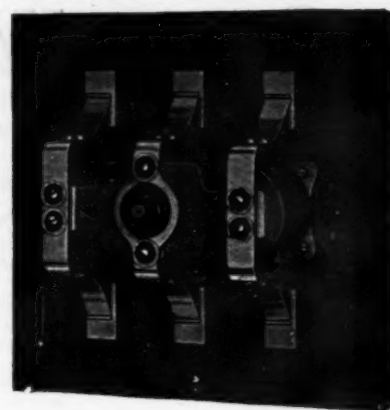
"DIAMOND H"

REMOTE CONTROL SWITCHES
LAMINATED BRUSHES
IRONCLAD MECHANISM
SELF CLEANING CONTACTS

FOR
ALTERNATING
CURRENT

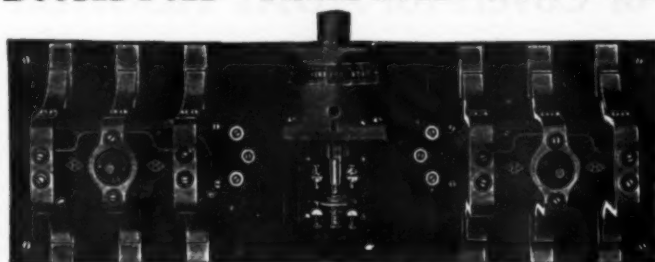


FOR
DIRECT
CURRENT



Type "F" 3-Pole Back Connected
Remote Control Switch

DOUBLE POLE—THREE POLE—FOUR POLE



Double Throw Combination

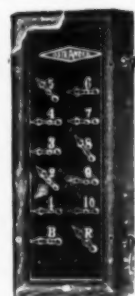
For two sources of supply with common load. Transfers
automatically upon failure of one source.

Double Pole		TYPE "F"		Triple Pole	
Catalog Number	Ampere Capacity	List Price	Catalog Number	List Price	
730	30	\$26.00	790	\$43.20	
740	60	48.00	800	54.00	
750	75	60.00	810	67.20	
760	100	83.60	820	108.00	
770	150	108.00	830	124.80	
780	200	122.40	840	139.20	

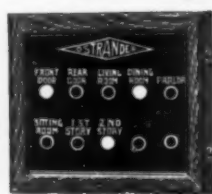
Write for Catalogue and Discount Sheet

Made by

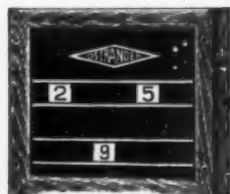
THE HART MANUFACTURING CO.
HARTFORD, CONN.,
U. S. A.



Needle Elevator
Annunciator



Target Drop
Annunciator



Gravity Drop
Annunciator



Pull Socket



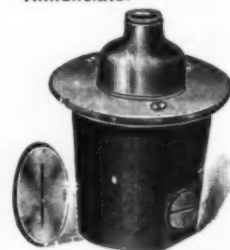
Key Socket



Keyless
Socket



Sunbeam
Reflector



Floor Box

SPEAKING TUBES

FLOOR BOXES

PUSHES

FIRE ALARMS

SOCKETS

ANNUNCIATORS

W.R. OSTRANDER & CO.
MAKERS REG. U.S. PAT. OFF. NEW YORK.

BURGLAR ALARMS



Half Tin Shade

TANK ALARMS

BELLS

BUZZERS

SHADES

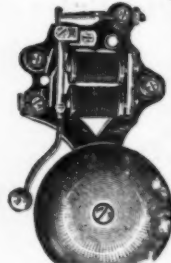
LETTER BOXES



Cone Tin Shades



Wood Box Bell



Skeleton Bell



Weatherproof
Bell



Iron Box
Bell



Wood or Metal
Push



Metal Push



Angle Parabola Shade

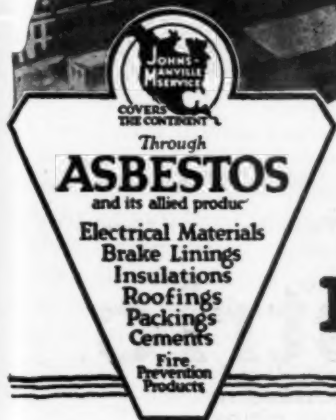
Hundreds of Fuses —but only one “Noark”

ELECTRICAL men who measure fuse costs on circuits—instead of on paper—continue to demand *indicating* non-renewable fuses.

The indicator didn't get on the fuse by accident—experience with fuses demanded it years ago. To deny this is to slide backward twenty-five years.

It is more than convenience insisting that a “Noark” fuse carry an indicator, for a decade of records shows that it is an ultimate economy which more than offsets the slight additional first cost.

JOHNS-MANVILLE Inc.
Madison Ave., at 41st St., New York City
Branches in 60 Large Cities
For Canada:
Canadian Johns-Manville Co., Ltd., Toronto



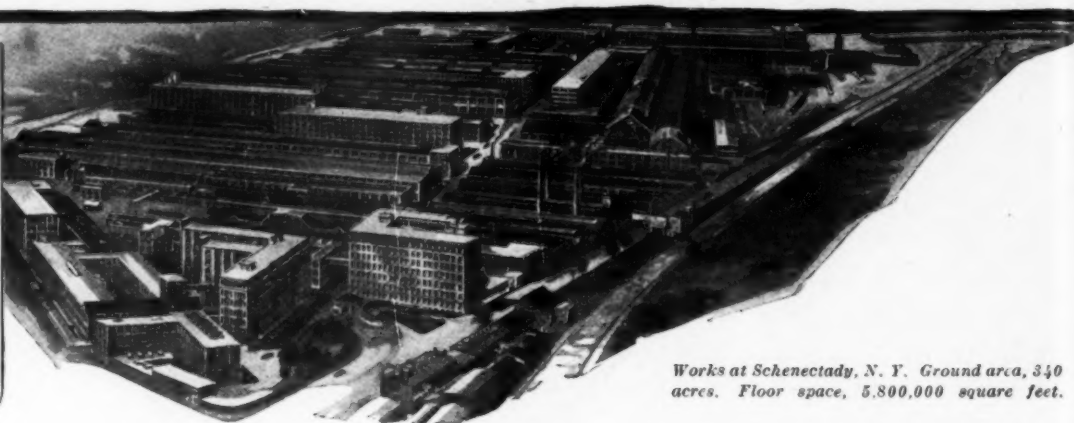
JOHNS-MANVILLE ELECTRICAL MATERIALS



Where to Get G-E Service—

Quick service is best obtained from the nearest G-E sales office, distributing jobber, or foreign representative

List of G-E Factories	
Connecticut	Windsor
Bridgeport	Maryland
Indiana	Baltimore
Ft. Wayne	
Massachusetts	Everett
East Boston	Hudson
Gloucester	Pittsfield
Lynn	West Lynn
Taunton	
Missouri	Belleville
St. Louis	Bloomfield
New Jersey	Newark
	Little Ferry
New York	Rochester
New York City	Marple, L. I.
Schenectady	
Ohio	Sandusky
Cleveland	
Pennsylvania	Scranton
Erie	Philadelphia
No. Kensington	
Rhode Island	
Providence	



Works at Schenectady, N. Y. Ground area, 340 acres. Floor space, 5,800,000 square feet.

For Business in the United States

G-E Sales Office	G-E Distributing Jobber
Alabama, Birmingham.....	Matthews Elec. Supply Co.
Arizona, Phoenix.....	
Arkansas, Little Rock.....	
California, Los Angeles†....	Pacific States Electric Co.
California, Oakland†.....	Pacific States Electric Co.
California, San Francisco§†	Pacific States Electric Co.
Colorado, Denver†.....	The Hendrie & Bolthoff Mfg. Sup. Co.
Connecticut, Hartford.....	
Connecticut, New Haven.....	
Connecticut, Waterbury†....	New England Eng. Co.
District of Columbia, Wash- ington.....	National Elec'l Supply Co.
Florida, Jacksonville.....	Florida Elec. Supply Co.
Florida, Tampa†.....	Florida Elec. Supply Co.
Georgia, Atlanta§†.....	Carter Electric Supply Co.
Georgia, Savannah†.....	Carter Electric Supply Co.
Illinois, Chicago§†.....	Central Electric Company Commonwealth Edison Co.
Indiana, Evansville.....	Crescent City Electric Co.
Indiana, Fort Wayne.....	
Indiana, Indianapolis.....	Indianapolis Elec. Supply Co.
Indiana, South Bend†.....	South Bend Electric Co.
Indiana, Terre Haute.....	
Iowa, Des Moines.....	Mid-West Electric Co.
Kentucky, Louisville.....	Belknap Hardware & Manufactur- ing Co., Inc.
Louisiana, New Orleans....	Gulf States Electric Co., Inc.
Maryland, Baltimore.....	Southern Electric Co.
Massachusetts, Boston†....	Pettingell-Andrews Co.
Massachusetts, Springfield.....	
Massachusetts, Worcester.....	
Michigan, Detroit.....	Frank C. Teal Company
Michigan, Grand Rapids.....	
Michigan, Jackson.....	
Minnesota, Duluth.....	Northwestern Elec. Equipment Co.
Minnesota, Minneapolis†§....	Peerless Electrical Co.
Minnesota, St. Paul†.....	Northwestern Elec. Equipment Co.
Missouri, Joplin†.....	
Missouri, Kansas City†....	The B-R Electric Co.
Missouri, St. Louis§†.....	Wesco Supply Company
Montana, Butte†.....	Butte Electric Supply Co.
Nebraska, Omaha.....	Mid-West Electric Co.
New Jersey, Newark.....	Tri-City Electric Co., Inc.
New Jersey, Trenton.....	
New York, Albany†.....	Havens Electric Co., Inc.

G-E Sales Office	G-E Distributing Jobber
New York, Buffalo.....	Robertson-Cataract Elec. Co.
New York, Elmira.....	
New York City§†.....	E. B. Latham & Company Royal Eastern Elec'l. Sup. Co. (Also Borough of Brooklyn, Long Island City and Jamaica, L. I.) Sibley-Pitman Elec. Corp.
New York, Niagara Falls.....	
New York, Rochester.....	Wheeler-Greene Elec'l. Sup. Co.
New York, Schenectady.....	
New York, Syracuse.....	Mohawk Elec'l. Sup. Co.
North Carolina, Charlotte....	Elec. Supply & Equipment Co.
Ohio, Akron.....	
Ohio, Cincinnati†.....	The F. D. Lawrence Elec. Co.
Ohio, Cleveland.....	Republic Electric Co.
Ohio, Columbus.....	The Erner & Hopkins Co.
Ohio, Dayton.....	The Wm. Hall Electric Co.
Ohio, Toledo.....	W. G. Nagel Electric Co.
Ohio, Youngstown.....	
Oklahoma, Oklahoma City†	Southwest G-E Co.
Oregon, Portland†.....	Pacific States Electric Co.
Pennsylvania, Erie.....	
Pennsylvania, Philadelphia§†	Philadelphia Electric Company Supply Department Frank H. Stewart Elec. Co. Union Electric Company
Pennsylvania, Pittsburgh†....	
Rhode Island, Providence.....	
South Carolina, Columbia†....	Perry-Mann Elec. Co., Inc.
Tennessee, Chattanooga....	James Supply Company
Tennessee, Knoxville.....	
Tennessee, Memphis.....	Electric Supply Company
Tennessee, Nashville.....	
Texas, Dallas†.....	Southwest G-E Co.
Texas, El Paso†.....	Southwest G-E Co.
Texas, Houston†.....	Southwest G-E Co.
Utah, Salt Lake City†.....	Capital Electric Company
Virginia, Richmond.....	Southern Electric Company
Washington, Seattle†.....	Pacific States Electric Co.
Washington, Spokane.....	Pacific States Electric Co.
Washington, Tacoma.....	
West Virginia, Bluefield.....	
West Virginia, Charleston.....	
Wisconsin, Milwaukee.....	

For Hawaiian business address Catton, Neill & Company, Ltd., Honolulu.

†No G-E Office ‡Warehouse §Service Shop

General Electric Company

General Office
Schenectady, N.Y.

Sales Offices in
all large cities

THE RESOLUTION

Whereas, There is need of words to designate our business and activities; and

Whereas, It is proper that we should deliberately add to our vocabulary such properly derived words as are required; now therefore, be it

Resolved, That the following words be adopted as recognized by us with the meanings attached:

NATIONAL ELECTRAGIST

FORMERLY ELECTRICAL CONTRACTOR-DEALER

(Trade Mark)

Official Journal of the

National Association of Electrical Contractors and Dealers

Publication Office: 11 Liberty St., Utica, N. Y.

Editorial and Business Offices: 15 West 37th St., New York City

THE NEW WORDS

Electragy—Name of the trade or business of Electrical Contractor-Dealer.

Electragist—A person conducting such a business.

Electragician—A person working at the business.

Electragize—A verb—to work at the business—or to provide electrical equipment.

Electragic—An adjective—relating to the business.

Electragian.

Electragial.

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Executive Committee Meeting

The regular meeting of the Executive Committee of the National Association of Electrical Contractors and Dealers will be held next month—on March 13 and 14.

Usually this is a midwinter meeting which takes place in January, but owing to the date of the annual convention this year having been put ahead to October, it was deemed advisable to arrange for the National Executive Committee meeting about midway between conventions.

The meeting will be held in New York City, at the offices of National Headquarters, and an unusual number of important topics will be considered. These meetings are open to all members and to the public as well.

Remember the dates, next month, Monday and Tuesday, March 13 and 14.

The Curbstone Contractor

Every well established electragist is forever bemoaning the unfair competition provided by the curbstoner—one of the electrical underworld, without shop, stock, or credit. There seems to be no ready means suggested for curbing the curbstoner.

This curse to the electrical industry has no overhead, of course. He has no place of business. He talks the customer into letting him do the job, is given partial payment in advance by telling a hardluck story, buys from the dealer where he gets the cheapest materials for cash, scamps the job, turns on the current, obtains final payment, and then disappears.

Soon thereafter his customer discovers that the work must be done over—in many localities by a licensed electrician—and municipal and underwriters' certificates must be obtained. So the customer pays twice, but in so doing he acquires a deep set prejudice against things electrical—and particularly against people electrical.

Not every curbstoner is incompetent or dishonest, however. Sometimes he is an ambitious wireman embarking on his own career without funds and without financial friends. A sharp distinction must be drawn between him and the crooked curbstoner lest injustice be done through undue severity or misplaced leniency.

How far regulation ought to go in the direction of requiring licenses and—as an antecedent to license—proper establishment in business, is a debatable point. While electragists agree that an electrical contractor, to be classed as such, should have a place of business, a set of books, an appreciable amount of stock, and a telephone listing, there

is probably a wide divergence of opinion as to the amount of stock, the rental paid, the volume of business done, and other factors which ought properly to enter into any determination of the question as to whether the contractor is credibly established or not.

Unquestionably, licensing tends to alleviate, although it may not cure, this evil. Many of those best qualified to express an opinion, say that an indemnity bond, filed as an adjunct to an application for license, is a better assurance of actual establishment than the amount of stock carried or the volume of business transacted. A wireman that has worked in a community for any length of time has perforce built up—or down—a reputation. If he is reliable and has developed a good record, he can obtain a bond, endorsements, and credit; and without these he ought not to be permitted to engage in competition with others who possess these important qualifications.

Again, the bond takes the place of a property qualification, the imposition of which always arouses in antagonistic quarters the suspicion that electragists are supporting a license law through a selfish desire to establish among themselves a close corporation which will freeze out competition and permit the raising of prices for electrical construction.

The NATIONAL ELECTRAGIST's columns are open to a discussion of this question. It is one that affects every electragist—and every curbstoner contractor. What is the answer?

Time to Plan for Future

Every year at this time there is a strong tendency by the weak business man to talk business depression. One of his favorite terms is "everything has flattened out." He has worked on a high tension to keep up to the holiday pressure and he forgets that every piece of mechanism—and also mental engines—must of a physical necessity have a let down in order to maintain proper equalization of future functioning power.

Merchandising is no variant in what is practically a fixed law, that of a temporary reactive condition. Large or small business—the big gun or the little one—each has a lessening of structural usefulness if fired continuously. And it is particularly essential that the man behind the gun may get a certain let down or his aim will become inaccurate.

Therefore why does not the weak, pessimistic merchant emulate the strong clear sighted business man who always welcomes a period of comparative quiet? This progressive type always is glad of a short time in which to catch his breath for future effort. There are certain people who mis-

construe their restlessness into ambition, when in reality it is almost a nervous disease.

Constructive power is only arrived at after careful thought, and during actual physical business activity no man gives his best mental energy to the ever necessary plans for future development.

The so-called depression of after holiday trade is only a slight flattening out of the tire of prosperity. It is in no way the exigency of a puncture or blow out. Stop for air—take a long breath and pump in new enthusiasm and it will roll around as usual through the year to a peak of speed perhaps higher than the one just crossed.

The man who owns it comes pretty near being the gasoline of his business. Let him watch his own mental speedometer and not water the gas with thoughts and talk of imaginary troubles which might get him in the service station if he persisted in the habit.

Open Competition Plan

As pointed out by Franz Neilson, the general counsel of the National Association of Electrical Contractors and Dealers, on another page of this issue, there was no decision against the Open Competition or Open Price Plan in the Hardwood Lumber Association case which has been so widely discussed.

It was said to be clearly proven that prices were increased through the restriction of production. The United States Supreme Court made permanent the injunction restraining members of that Association from continuing their methods.

Interchange of trade information for the benefit of both buyer and seller was not in question—or at least the buyer had not been brought into this case for consideration. But as Mr. Neilson has said, no new law was presented on the subject; and if the acts named had not been practiced, there would have been no cause for prosecution.

Join in Standardization

There are so many different branches of the electrical industry working to the same end that eventually results will be accomplished from which the public is sure to be the chief beneficiary.

For some time committees from the various branches have been working on plans of standardization for the industry. Among the greatest need are standardized plugs and receptacles. All agree that this is a worthy purpose and committee chairmen who are working with this end in view have had encouragement from all sides. However, there has been no concerted action.

On another page of this issue will be found the copy of a letter addressed to the contractors of Boston by R. S. Hale, superintendent of the Special Research Department of the Edison Electric Illuminating Company and chairman of the Wiring Committee of the National Electric Light Association. Mr. Hale's suggestions should be heeded by electragists. He takes it for granted that they are using only standard receptacles in their work and suggests that they make it known to the public that the old style receptacle is obsolete and cannot serve its purpose.

Electragists will also find it to their advantage to advocate the use of more receptacles and they will be better able to reach the public by following the campaign now be-

ing waged throughout the country for convenience outlets. This is a term that the public will understand readily and just as readily adopt after they do understand it.

The question of standardized plugs and receptacles is of great importance, but of still greater importance is first to educate the public to the meaning of such words as "plugs" and "receptacles." This can be done by advocating the use of "convenience outlets," and when *convenience* is in the question, then the public will give more attention to those electrical devices and appliances that assure convenience.

A New National Electrical Code

Electragists will be pleased to learn that the efforts of their representative, A. Penn Denton of Kansas City, are bearing fruit, and that a subcommittee of the Electrical Committee of the National Fire Protection Association is now considering the advisability of recodifying the National Electrical Code, and also the form which such rearrangement should take.

It is many years since the Code was last recodified, and there is pressing need for undertaking such a work at the present time—more especially since those best qualified to judge now express the opinion that the electrical rules have at last reached a stable basis and will require but slight modification from time to time.

Hubert S. Wynkoop of New York City, in his alphabetical tabulation of Code requirements, called *The Code at a Glance*, has clearly indicated how much benefit could be derived from a rearrangement, and the city of Portland has actually put out a complete and very meritorious code which retains the present rules grouped in a new and most convenient manner.

While the subcommittee is at work it should bear in mind that electragists everywhere are hoping that its report will not only provide a new skeleton on which the present requirements can be draped, but will offer a *model electrical code* which in form and phraseology can be confidently offered to city officials anywhere as suitable for adoption as an ordinance.

What is much needed is a document comparable with the various ordinances suggested by the National Fire Protection Association, or with the boiler code of the American Mechanical Engineers. Electragists should urge the preparation of such a document without delay.

Doctoring Business Ailments

In speaking to credit managers, V. G. Fullman of the Steel City Electric Company, Pittsburgh, whose splendid efforts in behalf of the National Association's accounting system are now beginning to accomplish results, told them that they had not been living up to their reputation as business advisors or physicians of the industry. He said the medical men endeavored to stamp out sickness wherever it appeared. They diagnose cases, write prescriptions, and follow up each case until the patient is restored to health.

As Credit Men, said Mr. Fullman, how do we treat the financially sick electragist that comes to our attention? Our panacea in most cases is the Standard Accounting System and it is unfortunately considered hard medicine to take. But this panacea is guaranteed to cure and we must insist that it be taken. If at first the patient refuses to take the medicine, he may go to another Credit Physician but if he

is told repeatedly that the Standard Accounting System is the only cure for his trouble he will eventually install and use it consistently until cured of his "slow-pay" disease.

We must not be quack physicians that give temporary relief in the form of additional credit after one of our members has prescribed the Standard Accounting System. We must coöperate religiously with each other and maintain the ethics of our profession or we will fail to earn the reputation of business physicians of our customers.

The medical profession, through proper agencies, endeavors to prevent disease by throwing safeguards around the public. Sanitary conditions are maintained, the public water supply is purified, our food is inspected, etc. What safeguards are we Credit Men using to prevent business sickness such as the "slow-pay" disease? When a perfectly healthy and sound electragician decides to become an electragicist he exposes himself to this disease and in a great many cases he is ignorant of the principal germs which must be avoided. He comes to one of us Credit Physicians for an examination and it is then our duty to warn him of certain business germs that he must avoid such as lack of capacity, lack of capital, or lack of character.

Capacity, or ability to conduct a business, depends to a large extent on a proper accounting system. Before extending credit we must insist that new concerns install the Standard Accounting System. If we do not insist we are doing the applicant a real injustice and exposing him to the "slow-pay" disease instead of guarding him against it.

Mr. Fullman said that the credit managers must oppose the creation of conditions which cause disturbance or friction in the industry resulting in a large sick list.

There is only one real way out of this difficulty. We must insist upon reasonable qualifications before assisting in the creation of new concerns and we must also insist that our present "slow-pay" customers shall install the Standard Accounting System so they will know why they are not making sufficient net profit to enable them to discount their bills. This represents a considerable task and a serious obligation, but is not inconsistent with our reputation as the business physicians of the industry.

American Engineering Standards

Not only the manufacturer, contractor-dealer and merchant but the public at large should be more fully conversant with the importance of the work being done by the

American Engineering Standards Committee. Its results are so far reaching as to be of incalculable value and every individual who gives thought or effort toward means by which living costs may be reduced should give the standardization subject the deepest consideration, and any personal influence for its furtherment should be regarded as a duty.

There is nothing debatable about it, as recognition of a standards necessity has been given our governmental sanction. The same thing prevails in Great Britain, and Germany is carrying on an intensified standardization campaign realizing that a resumption of her foreign trade depends on simplifying but increasing production. Holland, Sweden, Switzerland, and Austria are following the same plan. It is said that in Germany alone about one hundred thousand standard sheets are issued monthly to be used as data sheets, working drawings, et cetera, by designers and factory department heads.

The American public ought immediately to visualize the urgency of getting standardization into every branch of manufacturing here when it is told on authority that only in 1917 did Germany organize a central or national body for this work, and in four years it is only second to Great Britain, whose similar organization was instituted in 1901. The German central organization has now five thousand firms which are coöperating members.

Quoting from a paper issued by the American Engineering Standards Committee it will readily be seen how vital it is for all of us to evince an active interest in the development of standardization at home:

"There seems to be a striking analogy between the present standardization movement in Germany and the research movement developed there a generation ago. Whatever estimate one may place upon the role it played in German industries generally, everyone agrees that research was fundamental in the development of their great chemical industries. The role which the Germans are expecting standardization to play in all their industries would not be unlike the role which research has played in their chemical work."

The question is, can the United States be somnolent through another period of attempted industrial supremacy when the means to avoid it is being placed in the hands of her commercial body? We have seen the previous results of Continental thoroughness and, since we are warned, it is on our own heads if in international trade competition the sale of our industrials falls behind because of a lack of systematized methods.

Central Station Merchandising

Interesting Discussion at Annual Convention of Massachusetts State Association in Springfield Last Month

In answer to the question, "Should not central stations go out of the merchandising business and leave the appliance business to the electragicist?" presented at the question box which was a special feature of the annual meeting of the Massachusetts State Association held on January 5, C. E. Greenwood of the Boston Edison Company and chairman of the N. E. L. A. merchandise sales bureau, expressed himself as follows:

"Perhaps this broad question can best be answered by asking another, 'Why ought the central stations go out of the appliance business, and is it time for them to think of going out of the business?'"

"From the earliest days of the appliance industry the central station has been one of the most vitally interested in the apparatus to go on its lines and was the branch of the industry most justified

in promoting the sale of electric devices provided they would give suitable service. This interest cannot be lost.

"In addition to the load building possibilities of appliances is the demand of a public on the company supplying electricity in any community to guide them in the selection of the best devices. It is in no way detracting from the standing of the manufacturer to state that, generally speaking, the guarantee

of a device by the central station in good standing in a community is of greater value to the purchaser of an appliance than the guarantee of the manufacturer.

"The central station is the point of contact which the customer chooses of his own volition. Since the responsibility is in a measure on the central station it is not at all surprising that the central station sells the devices for which it is held indirectly responsible.

"Again, who will not admit that in any specialty business such as the electric appliance business, considerable capital is necessary for promotion work. The central station is the natural one to do this promotion, but the income derived from current used by these devices is not all profit and is it unfair therefore that the central station should not get some return in profit by selling the devices?

"The question of central stations

merchandising appliances is also a local problem. In a community which is not adequately served by electric dealers should the public be left without any proper place to purchase appliances when the supply company is operating in the community?

Creates More Business

"Investigation has proven that more electric appliance business is done by other electric interests if the central station sells appliances and on true cost principles. This has been found to be true by the manufacturers, by jobbers, and by leading exponents of correct merchandising ethics, such as Wm. L. Goodwin.

"Candy stores open on every other corner. All do more business and the people eat more candy. Food shops are keenly competing, but all are growing and the public are buying more food in

the shops. Electric shops led by the central station in fair competition with them can all grow by making a larger buying public through greater interest in electrical devices.

"There are certain places where central stations do not merchandise and dealers have built up a very good merchandise business. There are no facts to disprove that they might not do a very much better business if the central station was selling and promoting also. It is quite possible that the central stations are some day going out of the merchandise business, but will the majority of all branches of the industry vote that now is the time?

"Will not a continuation of aggressive promotion and selling of electric devices by the central station on strictly merchandising principles aid in the development of a healthier business for other electrical merchants?"

L First Home Electric in Utica, N. Y.

With Given Population of 100,000 and an Actual Counted Attendance of Over 15,000, at Least 15 Percent of People Inspected the Beautiful Building

The electrical interests of Utica have a closer relation existing among their craft and approach the ideal condition nearer than any other city in the state of New York. Again coöperation, with emphasis on the latter part of this much abused word, has spelled success.

Thoroughly sensing the increased sales suggestion realized through the demonstration of electric appliances and equipment in the environment of the beautiful home, the Contractor-Dealers' Association appointed a committee of two, Walter T. Langdon, a representative of the active dealers, and W. J. Reagan, commercial manager of the Utica Gas & Electric Company, to investigate and complete arrangements for a local home electric.

Thomas A. Smith, a local building contractor, while on a visit to California last winter, visited Adobe House several times during the period in which it was open. Mr. Smith was enthused with the idea, and it was a comparatively easy matter to enlist his aid.

He was then developing a new residential section and had a vacant lot on a well located corner a block from the main residential street directly facing this street. He agreed to construct on this site a handsome home and give the

contractor-dealers a free hand in arranging its electric wiring and equipment.

First Committee Report

With the question settled of securing a house, the committee investigated other features and made its first report. At this meeting the expense involved, the obstacles which might be anticipated, and the mass of work necessary were carefully talked over. Ways and means of meeting the expenses were discussed and a tentative budget prepared.

From this budget it was figured that an assessment of one-half of one percent of the gross business reported to the National Association of Electrical Contractor-Dealers by the firms represented, would serve as a foundation for this phase of the undertaking. However, it developed later that this sum was not sufficient to carry out all the plans, but some of the more progressive members of the organization promptly made up the deficit.

Committees were appointed as follows:

1. To prepare plans and specifications for wiring the home;
2. Advertising;
3. Finances;
4. Outside decorations;
5. Equipping the home electrically;
6. Home committee.

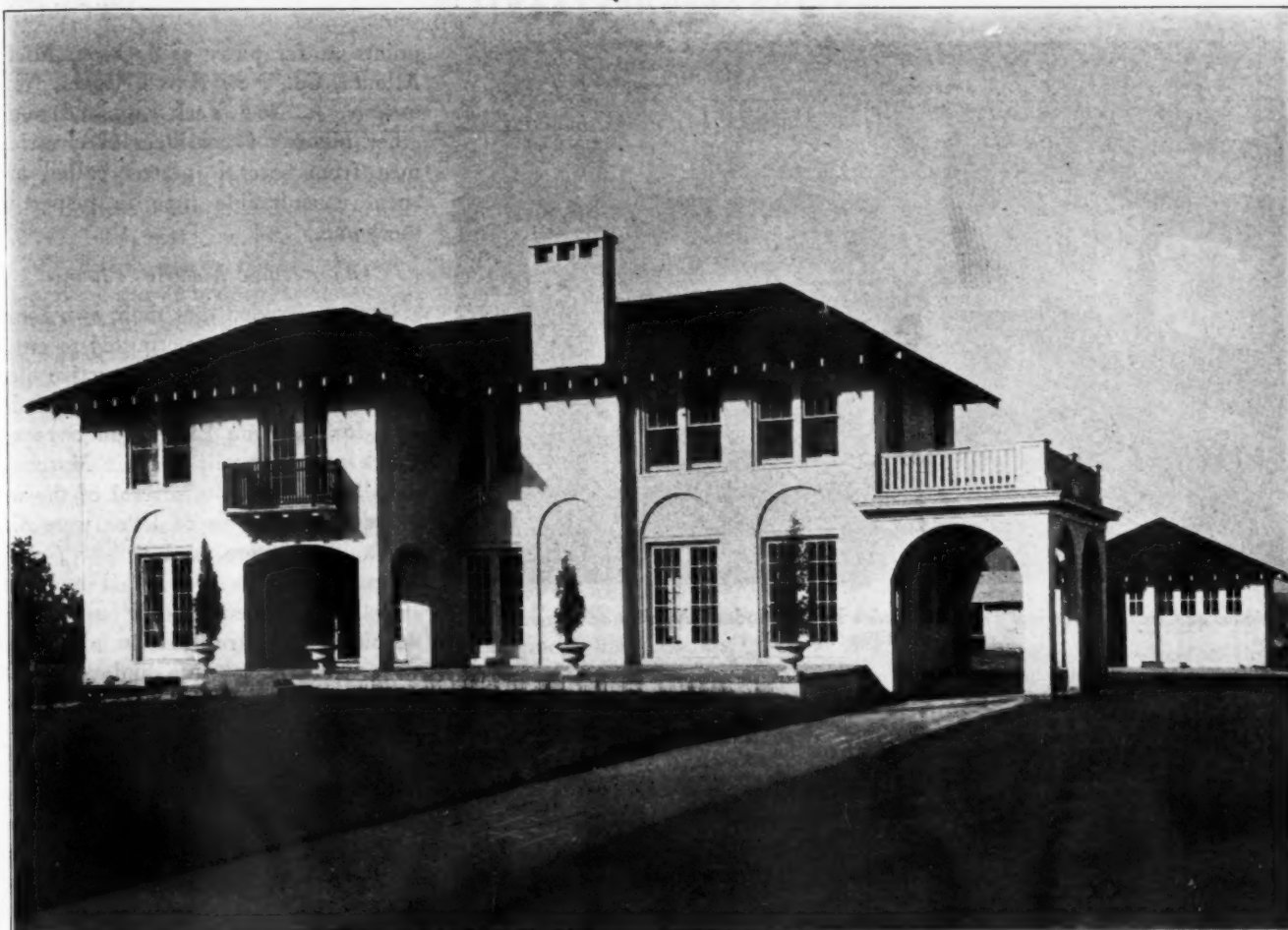
The home, which is of the Italian villa type, was finished in November. It is complete in every detail, surrounded by beautiful grounds, walks, drives, etc., and with a garage in the rear, corresponding in architectural design to the house itself.

Enlisted Responsible Support

Before the Electrical League started its work of equipping the home, the interior decoration was turned over to one of Utica's leading interior decorating firms. This firm used every effort to make the interior decorations harmonize with the beautiful exterior and with the purpose for which the house was constructed.

The contractors then enlisted the aid of Robert Fraser, Inc., to supply the proper interior furnishings. The head of the House of Fraser, the largest department store in the city, is Robert D. Fraser, president of the Rotary Club, and one of Utica's liveliest live wires. He saw the wonderful possibilities of the proposition from the public interest standpoint as well as from the commercial side and promptly gave it his energetic support.

He instructed his various departments to furnish the home completely with



Utica's First Electrical Home, Which is of Italian Villa Type, Was Inspected by Admirers From all Parts of Country

furniture, rugs, draperies, curtains, bed linens, table linens, and everything that the mistress of a modern city home would desire. That he was successful in his attempt to satisfy the most exacting housewife was apparent, as was evidenced by the enthusiastic comments of every visitor.

The Home Electric being so far completed and furnished, the electragists placed the finishing touches to it by supplying the electrical devices, each in its proper room and setting. Each appliance bore a small card stating the name of the device and the operating cost per hour.

Circulars Distributed

Before the home was opened to the public, the firms participating were supplied with circular matter for distribution to their customers. One of these contained a map showing the location of the home, the various landmarks nearby, and roads leading to it. The Utica Gas & Electric Company attached stickers to its monthly statements, inviting customers to visit the home.

Arrows similar to those in common

use by auto clubs, announcing that the home was open and indicating the direction of the route to it, were placed on poles all over the city and along the improved highways in adjoining towns and villages, within a radius of twenty-five miles.

Newspaper advertising was used liberally and the newspaper managements were generous in providing space in their reading columns for descriptions of the home, including bulletins of daily attendance. The Utica Sunday Tribune made the home its illus-



The Modern Dining Room all Ready for an Electric Breakfast



The Kitchen of Utica's Electrical Home Includes Every Modern Appliance from Electric Range to Utility Motor

trated feature story the day after it was opened to the public. The Morning Telegram sent a woman correspondent

standpoint that the Utica Home Electric excelled all others which have been opened to date. Utica's population is



The Crowd Outside Waiting to Get Into the New Home Electric

to the home and she wrote a very interesting article concerning it from the standpoint of the housewife.

Domestic science teachers from the public schools were in attendance at the home in the evening and gave lectures to groups of visitors at different times.

Accurate Attendance Record

The home was open from December 3 to 18, inclusive, from 2 to 10 p. m. each day, and exactly 15,124 persons inspected it. A young man was stationed at the door and by means of a small hand counting device registered every visitor, and presented them with booklets descriptive of the home, as well as a floor plan of several rooms showing the wiring plans.

It served as a fitting souvenir of the occasion, and from the remarks of many will undoubtedly be preserved for future reference. In this way one feature of the enterprise will be well served by the interest and education the public received along electrical lines.

It is believed from the attendance

given as 100,000 and with an actual counted attendance of 15,124 persons, a ratio of 15 percent was obtained.

Visitors were received at the home by R. F. McGuinness of the local lighting company, and Thomas A. Smith, the owner. Registrations were made from

points as far away as Jackson, Mich., Atlanta, Ga., New Haven, Conn., Newark, N. J., New York City and many other places. Committees of electrical men from several places called and spent considerable time in inspecting the home.

Other Home Electrics Planned

Several decided that their own localities will shortly be permitted to enjoy similar interesting and instructive electrical exhibits. Plans are now under way for a Home Electric in Syracuse which probably will open in March or April. Groups from several of the women's organizations of Utica were also among the visitors.

Suggestions were solicited and constructive comments acted upon very adroitly, which resulted in a well arranged home interior and a smooth running organization.

Other features of display were strings of lights along the street leading to the home. Several projectors floodlighted the home at night and from a distance it presented a very attractive appearance.

Electragists were well pleased with the success which attended their effort and felt well compensated for time, money and energy expended in bringing it to fruition. They report that their Christmas sales were greatly augmented through this medium.

In the broader field of educating the public in the wider use of electrical equipment, better and more complete wiring of homes, the good that has been accomplished is beyond computation, and the results will grow in volume as time progresses.



One of the Bedrooms of the Home Electric, Electrically Equipped of Course

Work Together

What Electragists Can Do For Central Station Told in S. E. D. Bulletin

Believe in it. Talk for it. Coöperate with it. Boost it continually.

Why? Because on its successful growth and prosperity depend the success and growth of his own business.

Without the generation of electric power by central stations there would be neither need nor room for the electrical contractor or dealer as he is today.

Only by the foresight, belief and business ability of those who created such a foundation has the need for electrical contractors arisen in any community, and only by the continuance along successful, progressive lines, guaranteed by public good will in the form of continued and extended patronage to the central station, can the electrical contractor in any community hope to have a successful continuance of his own branch of the business.

In view of the foregoing, which we believe to be a basic fact, what is the proper attitude for, not only the contractor, but for every man engaged in the electrical field, to take toward this important branch of the industry in his contact with the public?

Should he believe in it, or should he be one of the carping critics who, because everything is not done just to his liking or benefit or perhaps because he does not fully understand and know all the reasons for some existing condition that may govern the actions of the particular central station interest with which he comes in contact—takes delight in joining the anvil chorus and knocking everybody and everything connected therewith; not stopping to think that he is thereby deliberately undermining the basic foundation of his own particular business.

How much better to talk for it, know enough about it to talk intelligently, point out what its growth and development has done for the community, how it has improved community life; how it has lightened not only the burdens of labor by its many varied applications, but has lighted the dark and gloom stricken paths and streets of city or town; how it has brought new life and enjoyment into the home; how it has added to the amusement and education of the masses and last but not least how, through its service and the application thereof made possible by science and research, surgeons and doctors are enabled to do so much more to aid and remove

or alleviate human misery and suffering.

Why should he not believe in it and talk for it?

Coöperate with it. Pay your debt! The central station is coöperating with every contractor and dealer every minute of the twenty-four hours in the day, working while they sleep in its silent, efficient way, building up in the public mind the fact that electricity is a faithful, reliable servant ever at their command to be called upon in every emergency, and seldom failing to respond if each of its servants in his turn has done his job faithfully and well. Coöperate with it by doing your share of the job properly.

Coöperate with it by showing your belief and pride in your own branch of the business, based on the fact that you are an investor, not only in that branch, but also in the central station branch—if only to the extent of a single share.

Believe in it.

Talk for it.

Coöperate actively with it.

Invest in it to prove the foregoing, knowing that by so doing you are only adding to the security and strength of your own business.

Invest in it, because down at the bottom of each individual heart is the actuating motive of self interest—therefore, follow your business to its foundation stones, and in the security and reward that there may culminate; be a participant because you are and have been a factor in working for and bringing about the results.

Supreme Court and Open Competition Plan

BY FRANZ NEILSON

General Counsel of National Association Explains Misleading Reports

On December 19 the United States Supreme Court made permanent the injunction restraining the members of the Hardwood Lumber Association from continuing their methods.

This had led newspaper reporters and others to feel that "The Open Competition Plan is held to be illegal," and manufacturers and other business men are likely to be misled thereby.

There is no decision against the Open Competition or Open Price Plan as such. There is no new law on the subject. The old Sherman Law, the Clayton Act and the Federal Trade Commission Act, together with various state

statutes, still represent the law on the subject.

While there is no decision against the Open Price Plan as such, there is a decision by the Supreme Court in this case that the Hardwood men adopted practices which were in contravention of the law.

From the unofficial newspaper reports of that case, the following points stood out:

That particular Association was a clear combination

to restrict production;

to increase prices.

Replies to questionnaires were utilized as a basis

for bulletins;

for *advises*;

for *predicting advances in prices*;

for *promoting advances in prices*

by *withholding of products from the market awaiting higher prices.*

While almost more outstanding is the dissenting opinion by Justices Brandis, Holmes and McKenna, holding that there was not a violation of the law by the hardwood people, it suffices for the purpose of this comment to point out emphatically

that if the acts, which I have marked for italics in the foregoing, had not been practiced, there would have been no opinion against these people by the Supreme Court, nor would there have been any injunction in the first instance. In fact, they would not have been prosecuted.

Convenience Outlets

The following is taken from a recent number of *Edison Life*, issued by the Boston Edison Company:

In the past convenience outlets have been known as wall receptacles and baseboard receptacles, but sometimes the customer is not quite sure whether we are talking about spectacles or about receptacles for ashes or waste paper, and it has been suggested that in future we should talk about *convenience outlets*.

The importance of having plenty of convenience outlets put in when a house is wired is apparent the moment one thinks of it.

If a house is wired with only sockets then in order to use a flatiron, a toaster, a vacuum cleaner, a fan, or a portable lamp, it is necessary to unscrew a lamp

from a socket and then to screw in an attachment plug.

If however, convenience outlets are put in, and there ought to be at least one convenience outlet in each room, then all these other devices can be used conveniently.

Up to a few years ago the convenience outlets were made single so that they would take only one single device. Today a twin convenience outlet can be purchased at a cost of only 50 cents more, approximately, than the cost of a single outlet which only takes one device, and there is no reason why all the convenience outlets should not be made twin.

It is our sales force which goes to prospects and customers to talk to them about wiring their houses and putting in convenience outlets, but probably every Edison employe, or nearly all of them, are looked up to in their neighborhood as being especial experts on all electrical matters, and when they are asked about wiring it is suggested that they should bear in mind the importance of having plenty of convenience outlets in a house.

They are not only convenient but they add to the safety in that when a fan or percolator or flatiron or other device is used from a lamp socket on a bracket or chandelier, it is apt to strain the chandelier or bracket and perhaps cause trouble; whereas if the flatiron or device is used from a receptacle this cause of trouble never arises.

Let us all talk up convenience outlets whether we are in the sales department or not.

Better Lighting Campaign

Milwaukee Efforts Fruitful Since Meeting in December

Since the Milwaukee Better Lighting Campaign was launched on the evening of December 8, when one hundred and twenty-five representatives of the electrical interests of the city met in the lecture hall of the Public Service Building, plans have steadily progressed.

At this meeting various speakers told of the work that had already been done towards making the Milwaukee public more familiar with the need for better lighting in the home, the office, the store, and the factory, and outlined the future activities of the Electrical Development Association of Wisconsin.

This Association, which has been incorporated under the laws of Wisconsin, has opened a bureau of information in

the First Wisconsin National Bank Building where architects, building contractors and home owners, proprietors of retail stores, and manufacturers can obtain free of charge expert advice on wiring and illumination.

F. A. Vaughn, who is chairman of the illuminating committee, is having a number of plans drawn indicating the electrical outlets which should be provided in various types of residences, and many applications have already been received from architects and building contractors for copies of these plans.

The Chandelier Club of Milwaukee, of which Arthur Polachek is president, is installing lighting fixtures in the bureau of information of the Association, with the idea of making these offices a practical demonstration of what better lighting means.

Newspaper advertising has been started in the four Milwaukee daily papers. The standard form of advertisement adopted is three columns wide, and the text and illustration of each add will be devoted to practical suggestions for better lighting, and the need for more convenience outlets.

As there has been considerable building activity in Milwaukee for some time, it is believed that as a result of this advertising homes now being erected will be more suitable for fuller utilization of electrical conveniences than are houses erected some years ago.

It is believed, moreover, that one result of the advertising campaign will be to make home owners dissatisfied with their antiquated and inefficient lighting fixtures and lead them to install new fixtures in old homes.

A preliminary survey of Milwaukee homes and stores shows not more than one in five is adequately lighted and this is probably true of every city in the United States, indicating that a huge business exists in refixturing alone without considering the new business that will result from the building boom that has seemed to be definitely under way.

An interesting phase of the Milwaukee campaign has been the interest manifested in it by industries other than the electrical industry. In order to cash in on this interest a number of retail stores have planned demonstrations of improved methods of show window lighting, while furniture dealers have prepared for show window displays of wired furniture.

Other cities planning Better Lighting Campaigns may be interested in the success the Electrical Development Association of Wisconsin has met with in inducing building contractors to wire houses under construction in accordance with plans furnished by the Association.

The Milwaukee electrical interests found that it would be impossible with the time and money at their disposal to build a Home Electrical, as was done in Cleveland and other cities, so they went to contractors who were erecting residences for sale and pointed out to them the advantages of wiring their houses in accordance with the Association's plans.

This results in a little extra expense for the contractor for additional wiring and outlets, but in return the Association advertises at its own expense a limited number of homes so wired as Home Electrical and with the cooperation of local furniture dealers and electric appliance dealers furnishes them from basement to attic and places in them experienced demonstrators to receive the home seekers who visit these newly erected residences.

Practically every branch of the electrical industry in Milwaukee is represented in the Electrical Development Association of Wisconsin, and with few exceptions every electrical contractor, jobber, chandelier manufacturer and appliance dealer has contributed to the advertising fund that has been so successfully carried on.

National Meetings

Plans Already Under Way for Annual Convention at Cincinnati in October

Now that 1922 is well on its way and all are looking forward to the realization of their fondest hopes for the new year, members of the National Association should keep in mind that National Headquarters has some things in store for them that call for present planning if participation in future fruition is to be enjoyed. One thing at least should get more than passing attention, namely and to wit: the Twenty Second Annual Convention.

It is indeed a pleasant thought to realize that the time for another convention is fast approaching, although it does seem hardly possible that it is yet time to actually make plans for it. Nevertheless it is so.

At the convention in Buffalo last July

it was decided that the next annual convention would be held in Cincinnati on October 11, 12 and 13, 1922. It is well to have these dates firmly fixed in mind so that no other plans will be made to interfere with anyone's attending the big doings.

Prepare Your Budget

Now how about making the initial deposit on that budget that is going to pay your fare and your friends' fare to the event? It will be remembered that this is done with much satisfaction by a certain number each year. If perchance there are any who do not know what is meant by the budget plan let them hereby be enlightened.

The budget plan is to begin several months in advance to put away so much towards the cost of attending the next convention. This is done periodically, generally each month and can of course be done individually, but the better way is for several to pool their money.

A particular case is recalled of those who did this before the Baltimore convention. These men were sitting around a table at luncheon in New York one day in August, 1919—over a year before the next convention—when one of them mentioned the plan and suggested that they start the fund then.

Of course the convention was a long way off, and it took an over abundance of enthusiasm on the part of one or two to put the idea over. But it was done. And when convention time came along there was enough money in the treasury to permit the group to make a two day trip en route from New York to Baltimore in automobiles.

The budget plan is a good sound business policy, and it is hoped that many who have not adopted it before will get busy this year and avail themselves of its advantages. For some it not only means systematic saving but each time they make a deposit they unconsciously make a new plan concerning the convention that results eventually in hearty support to the movement.

Will Start Ball Rolling

It is expected that the convention of 1922 will surpass any previous one, even including the anniversary gathering at Buffalo last year. National Chairman Strong and Secretary Johnson are now in the midst of the usual pre-convention activities, working hard for the cause of electragy in general, but specifically making preliminary arrangements for the Twenty Second Annual Convention. They are planning to be in

Cincinnati on March 6, and will start the convention ball rolling there by having local committees appointed to outline definite plans for the big program that they want to see begun rightly and carried out smoothly step by step from month to month.

Executive Committee Meetings

The National Executive Committee will hold its annual meeting on March 13 and 14 at National Headquarters. The semi-annual meeting will be held in Cincinnati preceding the convention on October 9 and 10, probably hanging over until the 14th, the day following the convention, as usual.

Human Waste Greatest

By J. H. TREGOE

Secretary-Treasurer of Credit Men's Association Gives Views on Subject

It is not a cheerful reflection but still a very pointed one when we talk about waste to recognize that after all the sum total of the human waste is the biggest factor with which our nation and its industries must contend.

Every unemployed man adds one unit to this waste. Where two men are doing one man's job, there is the additional one unit to this waste. Wherever efficiency and directness does not control in the production of commodities in the handling of waste, and wherever the human being is concerned there waste occurs and the sum total is almost inconceivable.

If we had some means of determining the intrinsic value of one's time we could formulate some scheme for appraising the immensity of this waste and what it means to our economic life. The great difficulty in controlling overhead these days leads us to appreciate just what it means for any productive unit to be unemployed or for two or more units occupied with a job where one with the proper initiative and powers would suffice.

It seems to us that this one feature has been seriously overlooked in the principles and philosophy of labor organizations. The belief that doing less work or working a less number of hours would give employment to more men is just the kind of philosophy that injures enterprise, destroys initiative and creates an immense waste for the nation. The call comes to us in this present juncture to make our time and efforts 100 percent valuable, that whatever we do will represent the best in us and just as produc-

tive an effort as any competitive unit could give.

If this spirit should encircle the nation, how rapidly waste and overhead would decline, how rapidly would we have commodities at proper prices, how quickly would confidence be restored.

Planning the Day's Work

The Following Article Printed Through Courtesy of "Beardslee Talks"

Association with numerous electrical contractor-dealers in all parts of the country has shown that few of them have any idea or well developed plan of what the next day's work will be.

If the contractor-dealer has a crew of two or more men, he probably lays out the work for them the evening before, but most contractor-dealers fail to make any plans for the part of their organization which should be considered their selling force.

Certainly he should set a mark for the day's work. Too frequently he practically wastes the whole day because he hasn't any definite program, or spends too much time listening to the latest stories or the incidents of someone's week end trip. An outsider cannot make his plans for him, but he should arrange his work so that he can devote a certain portion of each day or week to the building up of his business.

He may want to take the major part of one day to solicit wiring jobs and the major portion of another day to sell lighting equipment. Preferably he should not jump from one thing to another. It is better to concentrate for a few days on house wiring and then spend an equal amount of time selling lighting equipment for the home.

Perhaps next on his program will be the solicitation of store lighting and office lighting jobs. There are seasons in the year when efforts spent in securing and soliciting such work will be most productive, and there are other times in the year when the contractor should visit the factories in his community and use his best efforts to sell motors, wiring and lighting equipment.

Local conditions will of course determine what fields are most profitable, but to get the best results from his own force and from his entire organization, a monthly, weekly and daily program should be formulated—then his best efforts should be directed toward the task at hand.



• CONTRACTING •

A Department Devoted to the Study and Discussion of the Practical Problems of Electrical Contracting

ALLAN COGGESHALL

Associate Editors

HENRY F. RICHARDSON



Systems of Floor Wiring

In a previous article the problem of distributing wires, particularly in large offices, to desks which are away from walls or columns one solution of this problem was referred to in which a number of conduits are installed radiating out from each interconnection box and terminating in floor boxes, floor elbows or tees. The use of tees and ells such as those with brass floor fittings as manufactured by Thomas & Betts or John Fountain, Jr., is to be recommended as being generally preferable to floor boxes. The ells or tees are much smaller and are less expensive than floor boxes and therefore a greater number can usually be provided. The unused ells or tees are hardly noticeable while a large number of unused floor boxes would be very unsightly. Where ells or tees are used a short piece of conduit may be screwed into the floor fitting to protect wires and prevent water from entering the fitting. For bell or telephone wires a separable connector may be installed on the end of the conduit or a bushing only if desired. Where such a scheme of distribution is used in lighting circuits a receptacle may be installed in a conduit on the end of the conduit. Several manufacturers furnish special fittings for this use.

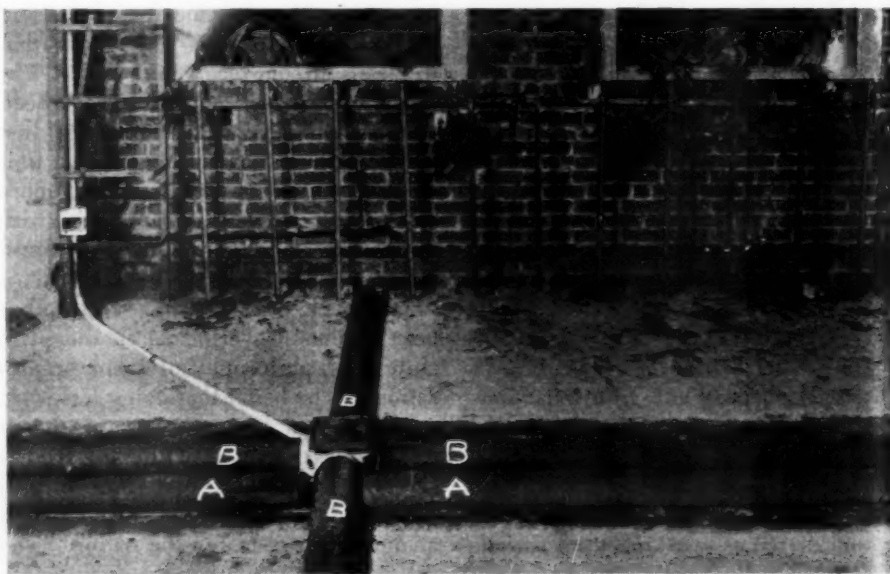
As stated in the previous article such a system is expensive and many outlets and conduits are installed which are never used. Also, no matter how many outlets are provided it will frequently be found that no outlet is available at the point where a desk is to be located and it is necessary to cut the floor.

The Fibre Conduit Company of Orangeburg, New York, have developed a system known as the Orangeburg Underfloor duct system as a solution of this problem. This system has been found to be very successful and to overcome the objections to other schemes of wiring. With this system a number of lines of ducts are laid parallel to the outside walls of the building the first

line about 30 inches from the wall with other lines spaced about 5 or 6 feet apart. These ducts consist of a u shaped section of fibre conduit laid with the open side down. These ducts are laid on the floor arches or where the fill is to exceed $3\frac{1}{2}$ inches the ducts are raised from the floor arches on a concrete pad. The ducts are covered by the fill and floor finish the top of the duct being 1 inch to $1\frac{1}{2}$ inches below the finished floor. The ducts are held in place before the fill is placed by cement mortar trowelled along the edges. At intervals of 40 to 60 feet depending on the density of wiring junction boxes are installed the lines of ducts being connected together by another similar duct passing through these junction boxes. The junction box nearest the outside wall is to be connected by conduits to an interconnection box from which conduits and cables are installed back to riser shafts as in other systems.

With such a system of conduits some part of a desk, wherever located, is practically certain to come over one of the lines of ducts. To wire a desk at any point an opening about $2\frac{1}{2}$ inches

in diameter is cut in the floor down to expose the top of duct. This may be readily done with a small chisel. Then with an ordinary wood auger or drill in a brace an opening of proper size is cut in the duct. This can be done without injuring any wires which may have previously been installed. A special floor fitting is then screwed into the hole in the duct until the top of the fitting is flush with the finished floor and the space around the fitting is filled in with cement. The fibre conduit cuts very easily and the fittings cut their own threads when screwed in. It has been found that a fitting can be installed in twenty minutes including cutting the hole and filling around the fitting. The fittings are of brass about $1\frac{3}{4}$ inches in diameter. The fittings are threaded to take a short piece of conduit as with the ells or tees. Wires to the outlet are pulled from the interconnection box through the conduits to the first junction box and then through the fibre ducts to the outlet. Where this system is used for light or power circuits the Underwriters rules at present require B. X. conductors, these may be easily drawn through



Section of Orangeburg Underfloor Duct System Showing Double System of Ducts and Junction Box in Duct for Lighting Circuits With Feed From Wall Outlet. Where Pipes Must Cross Line of Ducts a Concrete Pad Should be Provided to Raise Ducts Above Floor Slab

the ducts and fittings. Clamping and grounding devices are provided for B. X. and junction boxes and floor fittings. Special fitting are provided for use where floors are covered with linoleum or cork, etc., by means of which an outlet may be installed without marring the floor finish. Obviously outlets may be installed in these ducts before the floor fill and finish are in place where the location of desks requiring electric service is obtainable in advance. As far as the Underwriters' rules are concerned the wires of telephone and push button systems, etc., may be installed in the same duct with light and power wires. However in New York City the telephone company objects to the presence of light or power wires in the same ducts with their wires and for this reason separate ducts are generally provided in New York City for the light and power wires. The manufacturers of this system have devised an arrangement of ducts to be used where the double system is provided whereby an outlet may be installed in either system at any location without the necessity of crossing the ducts of one system over that of the other.

Wood floors are rarely used in large offices at the present time. Where wood floors laid on sleepers are used however a very satisfactory system of underfloor wiring may be arranged by installing additional sleepers on 5 feet or 6 feet centers. The additional sleepers should be installed about 8 inches away from another sleeper and the space between the two left without cinder fill when the floors are laid this leaves a series of raceways into which wires may be pulled. At some convenient location a trench running at right angles to these raceways may be provided with removable sections of flooring to give access to the ends of the raceways. Junction boxes may be installed below these removable sections of floor to terminate conduits from lighting panels or interconnection boxes. To provide an outlet at any point along one of these raceways a hole of proper size is bored through the floor into the raceway. A fitting similar to the floor fitting used with floor ells or tees but with somewhat wider flange may then be installed, being held in place either by screws through the flange or by a sort of "toggle" arrangement below the floor. The toggle method is neater and stronger. This consists of a chase nipple with a washer screwed into the lower end of the floor fitting. The washer should be

a little less diameter than the flange of the fitting and the sides should be cut away so as to leave the washer oblong in shape. The hole in the floor is to be enlarged in one direction with a chisel so as to just pass the washer. The fitting is then to be inserted in the hole so that the washer, held by the chase nipple, drops below the floor. The washer is then turned at 90 degrees and the fitting screwed up tightly against the chase nipple. This makes a very rigid job which is desirable because it has been found that occupants of desks frequently rock back in their chairs by pushing against electrical fittings under the desk. This puts a great strain on the attachment to the floor. B. X. conductors are of course required for light or power circuits. In this case a regular 90° B. X. connector may be used in place of the chase nipple. This method of wiring is similar to a method of distributing power wires to machinery described in a previous article and has been very successful in practice.

In the sections of a bank a similar institution to which the public have access the partition layout usually consists of a masonry or bronze bank screen separating the public space from the working space with wire cagework partitions in the working space dividing the various departments. These cage partitions generally run from the masonry bank screen. The furniture in the various departments is generally against the bank screen or cagework. Wires for adding machines, desk lights, reflectors, push buttons, telephones, etc.,

on desks or attached to the cagework. Conduits for such wires are often installed to the location of the various apparatus requiring service. However the cagework is not installed until the finished floors have been laid. The location of furniture as finally installed depends on the location of the cagework. It is generally not possible to determine the exact location of the cagework in advance. Much of the apparatus requiring wires is attached to the cagework and therefore conduits would naturally be located so as to be extended up the cagework either exposed or in one of the vertical tubes. As the width of such cagework partitions is generally about $\frac{3}{4}$ " if it is attempted to turn conduits up out of the floor by scaling a plan many of the conduits will be found to be away from the cage when the cagework is finally installed. Then unsightly extensions must be made.

A far better method is to arrange with the architects or others to have the tubes supporting the wire cagework specially designed for the installation of wires. A tube similar to the usual vertical tubes should also be installed along the bottom of the partition. The top of the usual tube or cornice at the top of the screen should be made removable or should have small hand holes to give access directly above the vertical tubes. Holes should also be drilled in the bottom of the top tube to allow wires to be installed in the top tube and turn down into a vertical tube.



Raceways Left Between Sleepers. Removable Sections of Floor are Provided Over the Trench in Which the Junction Boxes are Installed. The Photograph Shows Ends of Raceways Blocked by Another Sleeper. This Was Cut Out Before Floor Was Laid

The joint between the vertical tubes and the base tube should also be made so as to allow wires to be installed along the lower tube and up a vertical tube. Hand hole should also be provided. This joint is usually made with a casting arranged to bolt to the floor. This casting may easily be designed to facilitate the installation of wires. With this arrangement all wires to apparatus on or adjacent to the cagework can be supplied without trying to locate the cagework in advance and without exposed wires or conduits. Light and adding machine wires may be installed along the top member and where needed down a vertical member and telephone and bell wires may be installed along the base member and up a vertical member where needed. There is no objection to installing both classes of wires in the same vertical member provided they do not cross, that is the light wires must not be installed down from the top as low as the miscellaneous wires in the same tube. Where necessary light wires may be installed down one tube and miscellaneous wires up the next tube.

Wires may be brought into the cage system very conveniently by installing a continuous steel trough along the masonry bank screen on the working space side or rather one trough for light wires and one for miscellaneous wires. These should be say 2 inches deep and two inches in height for light wires and 3 inches or 4 inches in height for the miscellaneous wires the face of troughs being flush with the finish and covered with steel plates in say 4 foot sections. These may be installed conveniently just above the baseboard. Covers are usually painted to match the finished surface inside the screen. Covers should be cut where wire cage joins the bank screen and tubes in cagework at these points should be arranged to facilitate installation of wires from the troughs to the corresponding tube. Conduits to feed the system may readily be installed from panelboards and interconnection boxes, etc., to the troughs as the masonry bank screen is installed before the floor is laid. With this arrangement cagework may be installed as desired or changed in the future and electric wiring installed without difficulty. The additional cost of the special design of cagework is negligible compared to the result obtained.

(To Be Continued)

CODE CHATS

BY HUBERT S. WYNKOOP, M. E.

Monthly Discussion of National Electrical Code Practices by Well Known Authority in Charge of Electrical Inspection, City of New York

In Lighter Vein

Some of our inspectional experiences are amusing as well as annoying. For instance complaint was made of a serious delay in visiting a job in the suburbs. At the same time the inspector turned in the application for better address.

Later on it developed that the inspector had passed the premises on several occasions but had failed to identify them, owing to the fact that the owner had installed a secondhand front door and had failed to remove the old house number!

In another case the owner had dug a well because he was beyond reach of the city water system. Over the well instead of a pump house proper he built a garage. Six feet down in the well he placed an electric pump. Should the pump be raised to a point 4 feet above the floor of the "garage"? and how much oil and grease will find its way into the drinking water?

Advertisers are always striving for novel effects. A genius from Brooklyn recently requested the approval of the following: A captive balloon was to be anchored to the roof of a factory building. From the balloon would depend streamers of electric lamps, floating signs, and other electrical effects. The bobbing about in a breeze of the whole contraption would augment the spectacular effect. We sent the inventor on his way to conduct his experiments on the Jersey meadows.

Snap Switch as Service Switch

Some years ago one of our lighting companies asked us to approve a combined service and meter cabinet having a snap switch instead of a knife switch. After our surprise wore off we gave an approval. This device operated successfully in many locations until superseded by a knife switch in a sealed cabinet.

The only objection to the snap switch seems to have been the temptation which its exposed handle offered to the tenant to monkey with the equipment. While this objection could have

been overcome by placing the switch in a sealed cabinet such a change did away with the advantages claimed for the special device and led to its abandonment.

Fusing 3-Wire, 2-Phase Circuits

In the case of certain combinations of conductors constituting a 3-wire, 2-phase power line with a middle wire 50 percent larger than either outer it is found to be impossible to obtain a suitable 3-pole fuse block because the fuse sizes which will protect the outer wires are in one class while the fuse size for the middle wire is in another class. The only way out of this difficulty is to use a 2-pole block and a single pole block, each of the proper class to receive the desired fuses.

Motor Leads With Table C Ampere Ratings

The Code requires that "conductors carrying the current of only one motor must have a carrying capacity of at least 110 percent of the nameplate current rating of the motor." Where advantage is taken of the permission to apply Table C, ampere ratings to rubber covered wire, the 10 percent margin is sometimes overlooked, and only the nameplate current considered. In selecting the wire size from Table C, one must remember this point which is quite important where large motors are involved.

Cleat Work in Linty Places

The Code accepts cleats as supports for open work in dry places. But we have had some cases where the accumulation of lint was so rapid that it tended to form quickly a bridge from the wire to the surface wired over. Here cleat work is obviously inappropriate; and we have required changes—either to an extra half cleat, or to porcelain knobs, or to conduit work.

M. P. Machine Outlets

The Code requires that "outlets for moving picture projectors must be wired with wire not smaller than No. 4 B. & S. gage." Ordinarily this would mean that the entire line from the feeder or from the service should be of this size. We have been asked to accept smaller sizes where economizers were used, but have refused, as we had no assurance that a rheostat would not be substituted for the economizer.

In modern practice a motor-generator set is nearly always provided where the service is a. c. and the rule is quite obviously limited to that part of the line which lies between the generator and the outlet.

Double Services For Theatres

There has always been some argument as to whether the Code intended that the two services should be placed at widely separated points in order to give the greatest assurance of a continued lighting supply in case a fire should break out, or whether the rule was based on a wish to prevent the blowing of a fuse putting the entire house in darkness.

If the former were the intent, then one service should enter from the avenue and the other from the side street; but this is not the practice, even where there are mains available.

So then it is customary to call for two services (even if side by side) when two mains are available, and to accept a split service when there is only one main. The split service provides for an emergency caused by the blowing of a service fuse, but does not compensate for trouble on the main. We are thus driven to demand gas lighting or a storage battery, or to waive altogether an auxiliary source of lighting.

It should be observed that the Code does not call for auxiliary lighting except where the "source of supply is an isolated plant within same building"—a testimonial to the reliability of the average central station.

Service Cutout as a Main Line Cutout

On small jobs where No. 12 or No. 14 wire is large enough to serve as a feeder (either 2-wire or 3-wire), we require a main line cutout in addition to whatever fuse may be in the service cabinet. There are two reasons for this: (a) because the lighting companies do not usually carry fuses smaller than 30 amperes and (b) because the service cabinet is sealed and provides no ready means of killing the line before working on it, unless an externally operative service switch is used.

Rheostats and Auto-Starters

When must a rheostat be required with a direct current motor, or an auto-starter with an alternating current motor? The Code does not say; and one is thrown back on current practice to

determine what the answer shall be. So then perhaps it is safe to rule that direct current motors of $\frac{1}{2}$ h. p. or larger must be controlled by rheostats and that alternating current motors of over 5 h. p. must be controlled by auto-starters.

Signaling Between Ticket Office and Booth

Some years ago we had to take drastic action to cause the cutting out of speaking tubes and buzzer wires leading from ticket office to booth in our smaller movie houses.

The principal function of these arrangements seemed to be to transmit quick intelligence to the operator when an inspector was on his way upstairs. So we made it so unpleasant for the management in one way or another that the signaling systems were abandoned—at least we do not find them in evidence now-a-days.

Nails For Supporting Conduit and Fittings

Some contractors try to get away with wire nails bent over as substitutes for pipe straps, staples or pipe hooks which are customarily used for supporting conduit or armored cable.

We discourage this as it does not reflect good practice, and we also discourage the use of nails for fastening outlet boxes and wooden plugs instead of expansion bolts or toggle bolts. None of these methods insure workmanlike or permanent construction.

Convenience Outlet Promotion

Everybody knows that V. G. Fullman, sales manager of the Steel City Electric Company of Pittsburgh, is always doing something to help the industry. He seems never to tire in his effort to promote the interests of electricians. In addition to his fine work on behalf of the Standard Accounting System he is now endeavoring to further the convenience outlet idea. The following is a letter he sent out recently to about two hundred manufacturers and advertising agencies:

We wish to call your attention to our December and January advertisements in the prominent electrical trade papers.

These papers carry editorials and articles recommending that contractors install more Convenience Outlets and urging that they endeavor to persuade

owners and architects to provide more Convenience Outlets when making plans or writing electrical specifications.

All manufacturers should take advantage of this campaign and cooperate by putting an appeal for more Convenience Outlets in their trade paper advertisements.

Illustrations of current consuming devices should show the device attached to a Convenience Outlet when possible.

More Convenience Outlets installed means greater sales of your product whether it be construction materials or current consuming devices and makes the use of electricity more popular.

Expert Service

Professor W. D. Moriarty of the University of Washington says that expert service is the most important thing a contractor-dealer has to sell either in contracting or merchandising. He must capitalize this fact in season and out of season. More important still he must capitalize it always by affirmation, seldom if ever by negation.

Standardizing Dry Cells

With the purpose of standardizing, so far as possible, specifications for and the sizes of commercial dry cells, the Bureau of Standards recently called a conference at which the majority of the manufacturers of such batteries, together with a large number of users, were represented.

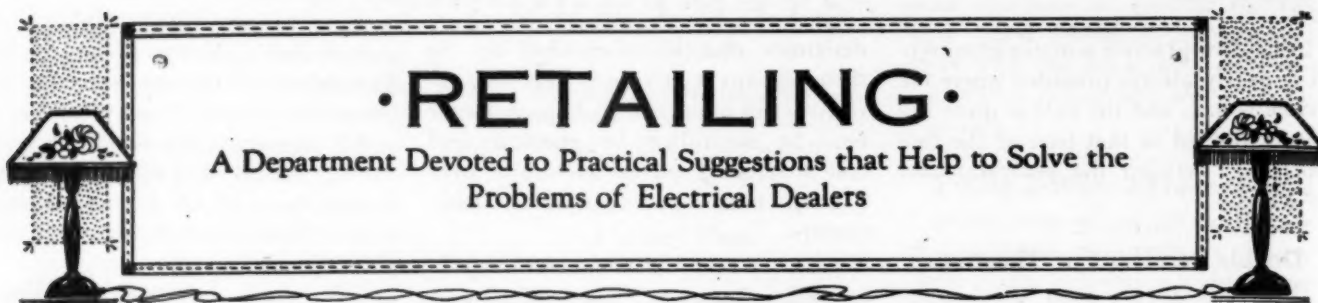
The work was not altogether new to the Bureau as Considerable progress had been made along the line of dry cell standardization during the war in cooperation with the War Industries Board.

At this conference 17 sizes of the larger dry cells were considered and seven of these were recommended as standard, 30 different sizes and kinds of flashlight batteries were considered and eight of these adopted as standard sizes; two sizes of batteries for use with radio apparatus were also recommended as standards for use with wireless outfits.

Public Utility Convention

The fourth annual convention of the Oklahoma Utilities Association will be held March 14, 15 and 16 at Oklahoma City.

A number of interesting exhibits of electrical and gas manufacturers, jobbers and suppliers will be features of the convention.



Some Things You Should Know to Sell Appliances

By J. E. BULLARD

Enthusiasm is Essential, But Knowledge and Yet More Knowledge Is What is Needed in Merchandising Electrical Equipment Today

One evening a young man called upon a family to sell the head of that family a certain proposition. This young salesman was brim full of enthusiasm. He reeled off the sales talk he had learned with as much vim as though he had written it himself. Everything was going well and it looked as though a sale would certainly be made until the prospect began to ask questions. Before he signed his name on the dotted line he wanted to be sure of certain points. Already he was practically sold and intelligent answers to the questions he had asked would have clinched the sale.

The moment these questions began to be asked the salesman began to flounder. He tried to evade them and when he was pinned down for an answer he had to admit that he did not know. The enthusiasm of the prospect began to wane. The more questions he asked the more he tangled up the salesman and the less interest he had in the proposition. By the time that salesman left this house there was no possibility of his ever closing a sale with that man. The prospect had lost all the confidence he had ever had in the proposition.

This young man had been trained in accordance with the old principles of salesmanship. He had been imbued with a great deal of enthusiasm; he had been taught and made to rehearse until he was letter perfect—a carefully prepared sales talk. He had been given the answers to a few stock objections. He had been instructed to try to carry his prospects by storm. He had not been instructed in the fundamentals of the proposition. He could not make a sale to anyone who was careful about spending his money.

Modern Methods Different

A quarter of a century ago those same methods would have secured results. There were not as many magazines read then as there are now and what magazines there were did not carry anywhere nearly as much instruction in their advertising pages. Then a lot of the work that is now done by advertising had to be carried on by personal salesmanship.

Today the fixed sales talk has been to a very great degree displaced by the advertisement which is essentially the old time salesman's talk reduced to print, and circulated and presented to a far larger number of people and in much less time than salesman could possibly present it. The man who hopes to sell goods now must know far more than a sales talk that he has learned by heart. He must be in a position to answer all questions that may have been suggested or may not have been answered by the advertising.

Even though the goods he is selling are not advertised at all, he will find that other goods that may be made to serve the same purpose have been advertised and that people have acquired enough information to enable them to ask questions that a person would never have thought of asking in the old days. It is very hard to find any class of goods where at least some of the steps of salesmanship have not already been taken.

If a person could be found in this country who had never heard about an electric washing machine, that person would most certainly be a great curiosity. Advertising has attracted the attention of people to the washing machine. It has aroused an interest in them. A tremendous number of them

have a desire that is more or less intense to own a washing machine. Some of them have been caused to satisfy that desire simply through advertising. The remainder are ready to be closed.

Advertising Does Most of Selling

Taking the five steps of making a sale we find that the advertising has already gained a hearing for the machine; it has attracted attention to it; it has aroused interest in it as is attested by the way the steam laundries are now going after business where before they were more or less indifferent; it has created a desire. The fifth step, the actual closing of the sale, is all that is left.

Now this means a good deal of a revolution in the old ideas of salesmanship. The only person who can make a real success in selling goods today is the one who is a good closer. It is only necessary merely to run over the first four steps of selling quickly. All he needs to do is merely recall to the mind of the prospect certain points that prospect may have overlooked and tie his products to those points. When he makes his first call upon his prospect that prospect is already in the state of mind he or she would have been after a long series of calls had been made in the days before modern advertising. It is a case of bringing forward facts that will speed up a decision.

This requires high grade salesmanship and it requires a thorough knowledge of the goods. The man who sells washing machines and knows all about washing in the home, in the laundry, and all other methods of washing, the man who knows fabrics and the methods of washing them is going to be better able to sell washing machines than the

one who knows less about these things. It must be borne in mind that the laundries are giving the public an immense amount of information and that this information suggests questions that are asked the washing machine salesman.

Accurate Answers Necessary

Even though he is able to give answers that satisfy the prospect sufficiently to cause that prospect to become a purchaser, if these answers are not correct, if they are not based on accurate information, the sale is really not made. It may later be necessary to take back the machine. In any case that purchaser is going to spoil a great many other sales.

The men who made the greatest successes in selling electric power were those who could give the power prospect the most information that would really prove of value to him. In a great many cases he was able to suggest changes that materially increased the productivity and the profits of the plant. Often he was more of an engineer than a salesman.

As a matter of fact many of these power men would not have been considered, were not considered salesmen by the old time salesmen. They were men who apparently did not understand salesmanship. Sometimes they would actually turn down a sale after they had worked for months or perhaps years making the most thorough investigations of the prospective power user's needs and bringing him up to the point of signing a contract. They did this because above everything else they valued a correct answer to every question in the case.

That is the type of salesmanship that is needed in the sale of all kinds of electrical equipment. It is the only kind of salesmanship that the electrical dealer can afford. If people are to be given too little information, if they are not to be given correct answers, let the department stores and the stores carrying electrical equipment as a side line make this mistake. People are not so likely to expect these people to be expert. They are not going to take their answers seriously.

Electragists Must Know

Electragists, however, are specialists. People look to a specialist for the facts, for the truth. They expect him to be able to give prompt and true answers to every question. He must watch his step.

A complete knowledge of a washing

machine does not mean knowing all about all its parts, the power it consumes, the way it is made and the like. A man who understands textiles thoroughly, who knows how they are made, who knows the difference between wool, silk, cotton, and flax, and how they must be treated when being washed and ironed can take a washing machine he knows very little about from the mechanical point of view and sell at least twice as many as can the man who has a thorough mechanical knowledge of the machine but little practical information in regard to its use.

The textile expert will be able to sell the machine for the very same reason that the engineer was able to sell electric power. He will be able to give the prospective purchaser information that will be of very great value to her. She will not fail to connect this information with the washing machine. In fact the two will be so thoroughly tied together that she will feel the need of that machine in order to make use of that information.

On the other hand the person who has not given this end of the washing machine sufficient attention may make the fatal mistake of saying that the whole washing can be put right into the machine and washed, silks woollens and linens as well as cotton. He may talk about ironing silk hosiery with his iron and in so doing show his ignorance of the proper use of the iron. The prospect has been given a great deal of information about all kinds of textiles through advertising. The last time she purchased a pair of silk hose she was given a little booklet brimful of information in regard to silk and on one page there appeared a warning against ever allowing a hot iron to come in direct contact with the silk. Manufacturers and the laundries have taught her much about the nature of other fabrics. She is bound to know enough to make her suspicious of any machine sold by a salesman who does not possess more information in regard to how that machine can be used than she does.

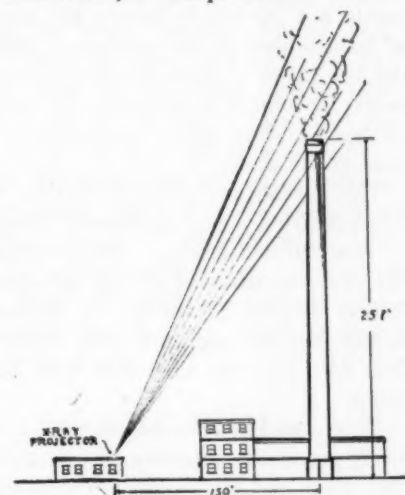
Knowledge and yet more knowledge is needed to sell goods today. Enthusiasm is essential. Sales talks may be worth while. These, however, will not close sales unless the salesman has a complete knowledge of that which he is selling. It is well to bear in mind that the prospective customer of today knows more about practically every-

thing that is being sold than did those people who actually made purchases a generation ago. The real competition lies not so much in the goods themselves but in giving the sort of information that the prospect does not already possess and which will result in a sale.

Flood Light Solves Problem

By Using National X-Ray Reflector Difficult Illumination is Secured

Recently the Eagle-Picher Lead Company made extensive improvements at its oxide works located at Galena, Kansas, and among other things had built a concrete stack 257 feet in height to carry off fumes from the bag room. The stack, when put into use, was found to serve its purpose admirably, but an unforeseen difficulty developed, which for a time threatened to materially cut down the efficiency of the plant.



Floodlighting This Chimney Was Engineering Feat

In the process of separating the oxide from the gases, it frequently happens that one or more bags become unfastened from their shackles, thereby permitting this valuable byproduct to escape to and out of the stack. In order to detect such disarrangement of bags frequent observations of the mouth of the stack are made and if a whitish haze is seen to emerge therefrom it is evident that something is not right in the bag room. An attendant, protected by a gas mask, enters the chamber, makes whatever adjustment may be necessary and then returns to his duties outside.

During the daylight hours it is a simple matter to detect the escape of oxide, but at night suitable illumination must be provided to show that all is well or otherwise in the bag room. In building the stack no provision had been made

for such lighting and owing to the height of the structure it was deemed impracticable to equip and maintain a scheme of illumination.

After vainly trying out various schemes which proved unsuccessful or unsatisfactory the management appealed to the Empire District Electric Company at Joplin from whose lines the plant is supplied with power and light and asked their engineers to recommend a plan to illuminate the mouth of this 257 foot stack.

A representative of the central station company visited the plant and made an inspection and survey of conditions and requirements. The logical method of providing the desired illumination was found to be a beam of light directed to the top of the stack from some vantage point in its vicinity.

For various reasons the management would not consent to having the source of light placed on the building in which the bag room is located and it was necessary to mount a projector on a low storage building about 150 feet from the base of the stack.

This necessitated a throw of about 325 feet requiring a highly efficient reflector of concentrated beam. After studying the characteristics of several projectors it was decided to specify a National X-Ray No. 60, equipped with reflector No. 840, for use with 500 watt flood lamp.

This unit has been found to give entirely adequate intensity at the tip of the stack and the lead company management expressed themselves as being well pleased with the result.

Kilo Watt Starred in Movie

One Reel Film Produced by N. E. L. A.
Dramatizes Life of Electricity

A fuller appreciation of the service a power company renders a community is expected to result from "Back of the Button," a one reel film which has been produced by the National Electric Light Association.

This movie gives the public a comprehension of the vast investment that must be made before homes and industries may be supplied with electricity. At the same time it is designed to impress power company customers with the desirability of light company securities as an investment.

The N. E. L. A. headquarters has sent to Association members exploitation data which will enable power company official, who are inexperienced in the film field to put the picture over big

locally. There will be surprisingly little for the power company officials to do, as a great deal has already been done for them.

The advertising campaign is laid out and the publicity stories for newspapers are prepared. Power companies are given suggestions as to just how to approach theatre managers in the matter of booking the film.

The exploitation plan calls for newspaper advertisements prior to the picture's showing and during its exhibition. In addition to arousing public interest in "Back of the Button" these advertisements will include the theatre's entire program.

Besides receiving this extra advertisement from the power company free, the theatre will be supplied with posters and window cards. Souvenir Kilo Watt buttons will be available for distribution among the theatre's juvenile patrons for several days prior to the showing.

The data book describes in detail how to make up a person of short stature so as he will look like Mr. Kilo Watt himself. The appearance of this mysterious person on the streets for a few days prior to the showing—and during the showing—will prove a most effective exploitation stunt.

After the picture has been exhibited in the big downtown houses there are suggestions as to how it can be booked in the neighborhood theatres. And in addition to the theatres there are the chambers of commerce, rotary clubs, schools, women's clubs, industrial plants—all potential centers of movie exhibition, it being possible with a suitcase projection machine to screen a film any place where connection can be made with an electric light socket.

Mythology is brought up to date in "Back of the Button," which was produced by the Rothacker Film Company of Chicago. The opening scene shows a young boy playing with an electric train who asks his grandfather what makes the train go when he presses the button.

Grandpa takes the youngster on his knees and proceeds to tell him in mythical detail the life of electricity, using as characters Thor, the god of lightning and thunderbolts, and Kilo Watt, who harnesses the great thunderbolts and transform them into servants of mankind.

Apartments Install Ranges

The Idaho Power Company of Pocatello, Idaho, announces that it has equipped the new Wooley Apartments in that city with forty-four electric ranges. These apartments are owned by Dr. H. S. Wooley of Pocatello, who made it a point to see that his apartments were fully modern in every way.

Already there have been many compliments by the tenants on the electric range and it is certain that forty-four more families will be converted to the modern electrical way.

Blackface Comedy Sells Cleaners

The Washington Wiring and Supply Company, electragists, of Washington, Pennsylvania, recently put on a clever turn at the Industrial Exposition in that city which resulted in numerous sales.

A professional comedian and a salesman from The P. A. Geier Company made up the blackface team which performed each evening. Their skit was obvious advertising but the jokes and



This Comic Stunt Worked Wonders at Cleaner Exhibition

repartee kept the crowd in good humor and permitted them to make a thorough showing of the Royal electric cleaner which was being featured.

At the conclusion of the fair a demonstration was held in the company's store which over two hundred and fifty people attended.

Attracting the Kiddies

Interesting the younger generation in your window displays is very good advertising. Children are not only good boosters for the store that attracts them but they are your permanent customers of the future.



This idea is E. F. Newkirk's of Edison Lamp Works, Harrison, N. J.

A cornucopia of cardboard, white Mazda lamps, a little crepe paper, and some paste made these Valentine dollies. The features are painted on the lamp with water colors. Red is used on the cheeks and blue or brown for the eyes.

Show these ideas to your sales girls and you will find they will be glad to make these novelties for your window displays.

Prize Contest Gets Results

At the fair, the food show, or the trade exposition you arouse a lot of interest with an attractive electric appliance booth; you talk electric cleaners to a good many folk who ought to be first class prospects; you work up quite a glow of enthusiasm, all in all. But how to get the interested folk, the possible prospects, and the enthusiasm to your store? How can you connect up the fair and the cash register without the extra expense of house to house calls on prospects?

The Burton Electric Company of San Diego, California, has it all figured out. In a recent number of "Royal Breezes," house organ of The P. A. Geier Company, the story is told of how they did



Valentine Display Arranged by E. T. Newkirk of the Edison Lamp Works, Harrison, N. J.

it when the San Diego Business Men's Fair came off recently.

Not only did they step hard on the gas in demonstrating efforts at the booth, but they announced a prize contest in which a Royal cleaner was to be awarded the lucky winner. Coupons for the contest were given out at the fair, and everyone was told to come to the store on Saturday evening, when the award would be made.

Needless to say, the shop was crowded at the appointed time, with an overflow mob on the sidewalk in front. The Burton Electric Company had a whole fair to themselves, and they used it to good advantage.

Cleaner Offered as Prize

What do you do on rainy days, Mr. Outside Salesman?

The Torrington Company of Cleveland, Ohio, is after ideas on this subject. Do Wallace Reid and Gloria Swanson, or Doug and Mary, claim the full attention of the man who sells electric cleaners on days when the heavens are unpropitious? Or does he put in his time plotting conquests new?

This company, in an effort to unearth original ideas on this subject, has offered as a prize a Torrington cleaner for the best account of what to do on rainy days.

Trade Paper Advertising

The advertising agency, Frank Kierman & Company of New York City, recently opened a business paper department under the direction of Alfred N. Williams, whose first work was to ad-

vise manufacturers to use as their advertising mediums business papers first, last and all the time; and not to use any other form of advertising unless they made business paper advertising the foundation of their appropriation.

Mr. Williams, who has an experience of seventeen years in trade paper and advertising agency work, declares that this department will accept as clients only those who will use as their basic advertising the business papers in their respective fields.

Valentine Display

To carry out a Valentine window display similar to the one above begin by placing white crepe paper across the top of your background.

Next attach the twisted ribbon as shown and then place red hearts cut from cardboard in a decorative way. Two shades of red, the darker in the center, adds something to the effect. The cut streamers hanging below this are of red crepe paper cut six inches wide.

Red and white crepe paper on the floor and white paper doilies complete the setting. The arrangement of the poster, the portable lighted lamps, and other details can be easily copied or elaborated upon.

Exposition Postponed

The American Building Exposition, originally scheduled to open January 4th in the new Cleveland municipal auditorium, has been postponed until February 22nd because of the failure to have the building ready by the first of the year.



ORGANIZATION ACTIVITIES

A Department Devoted to the Reports of State and Local Meetings



STATE CHAIRMEN AND SECRETARIES

State	Chairman	Secretary	State	Chairman	Secretary
ONTARIO, CANADA:	K. A. McIntyre, 24 Adelaide St., W. Toronto	J. A. McKay, 24 Adelaide St., W., Toronto	MARYLAND:	S. C. Blumenthal, 505 N. Eutaw St., Baltimore	C. Philip Pitt, 15 E. Fayette St., Baltimore
BRITISH COLUMBIA:	C. C. Carter, 739 Hastings St., Vancouver	P. F. Letts, 3044 Granville St., Vancouver	MASSACHUSETTS:	Geo. B. Quinby, Boston	J. E. Wilson, 263 Summer St., Boston
COLORADO:	J. Fischer, 213 15th St., Denver	W. A. J. Guscott, 1109 California St., Denver	MICHIGAN:	Henry Roseberry, 41 Pearl St., Grand Rapids	H. J. Shaw, 613 Lincoln Bldg., Detroit
CONNECTICUT:	E. S. Francis, 272 Asylum St., Hartford	Geo. M. Chapman, 43 E. Main St., Waterbury	MINNESOTA:	Emil Anderson, 240 Plymouth Bldg., Minneapolis	Arthur P. Peterson, 2395 University Av., St. Paul
DISTRICT OF COL.	Frank T. Shull, Conduit Rd. and Elliott St. Washington	H. R. Harper, 635 D St., N. W., Washington	MISSOURI:	W. J. Squire, Kansas City	A. J. Burns, 533 Delaware St., Kansas City
FLORIDA:	T. E. Satchwell, Jacksonville	J. G. Spencer, Palatka	NEW JERSEY:	Geo. E. Davis, 23 Central Ave., Newark	Elmer D. Wilson, 23 Central Ave., Newark
GEORGIA:	Henry Morton, 1227 Broad St., Columbus	C. B. Anderson, Walker El. & Plam. Co., Columbus	NEW YORK:	F. A. Mott, 29 St. Paul St., Rochester	J. P. Ryan, 26 Cortlandt St., New York City
INDIANA:	A. B. Harris, Gary	A. I. Clifford, 507 Odd Fellows Building, Indianapolis	OHIO:	C. L. Wall, 212 S. Main St., Akron	Walter R. Keefer, 939 E. McMillan St., Cincinnati
IOWA:	Louis L. Corry, 510 Brady St., Davenport	Arthur Tucker, 619 Jackson St., Topeka	PENNSYLVANIA:	R. W. Keck, Allentown	M. G. Sellers, 1518 Sansom St., Philadelphia
KANSAS:	C. S. Smallwood, 1017 N. 5th St., Kansas City	336 Camp St., New Orleans	TENNESSEE:	P. W. Curtis, Chattanooga	J. A. Fowler, 10 S. Second St., Memphis
LOUISIANA:	C. S. Barnes, 513 Gravier St., New Orleans	R. S. Stearnes,	WISCONSIN:	B. L. Burdick, 72 Water St., Milwaukee	H. M. Northrup, 25 Erie St., Milwaukee

LIST OF LOCAL ASSOCIATIONS AND MEETINGS

State and City	Local Secretary	Street Address	Time of Meet.	Place of Meet.	State and City	Local Secretary	Street Address	Time of Meet.	Place of Meet.
ALABAMA					NEW JERSEY				
Birmingham			Mon. Noon	Hillman Hotel	Atlantic City	F. P. Wright	16 Ohio Ave.	1st Thursday	Malatesta Hotel
Mobile	E. J. Hueguenot		Fri. 5:30 p. m.	Members' Offices	Jersey City	Wm. Doellner	743 Bergen Ave.	P. S. Bldg.	
CALIFORNIA					Newark	Geo. E. Davis	23 Central Ave.	1st Monday	23 Central Ave.
Berkley	J. M. Gregory	Pacific Bldg.	Fri. 8 p. m.	Pacific Bldg.	Paterason	H. M. Desaix	88 Ellison St.	Last Friday	P. S. Bldg.
Covina	F. Rambo		1st & 3rd Mon.	Ontario	New York				
Long Beach	O. W. Newcomb	308 E. 4th St.	Tues. Ev'g.	Spaulding's	Albany	Chas. Russell	31 Hudson Ave.	3d Thursday	Pekin Rest'nt
Los Angeles	Irvin C. Bruns	118 E. 3d St.			Binghamton	A. H. Hyle			
Oakland	J. Gregory	Pacific Bldg.	Tues. 8 p. m.	Pacific Bldg.	Brooklyn	H. W. Walcott	12 Nevins St.	1st Mon.	Cham. Com.
San Francisco	A. Elpins	165 Jessie St.	Wed. 1:30 p. m.	165 Jessie St.	Buffalo	E. P. McCormick	555 Wash. St.	Fridays	507 Elec. Bldg.
Van Nuys	Los Angeles Assn		Tues. 6:30 p. m.	Pin Ton Cafe	Cooperstown	B. B. St. John	Oneonta	3d Tues.	Vanon
COLORADO					Endicott	A. H. Hyle	Binghamton	Tues.	Cham. Com.
Denver	L. B. Roberts	403 Mining Ex. Bldg.	2d & 4th Tues.	227 Coronado Bldg.	Kingston	Henry Lund	309 Main St.	3d Mon.	Mfgs. Ass'n
CONNECTICUT					Nassau-Suffolk	M. C. Rivenberg	Huntington		
Hartford	H. D. Hitchcock	45 Preston St.	Call of Sec'y	118 Asylum St.	New Brighton	J. A. Palmer	Tottenville		
New Britain	F. Mulvehill		Monthly	192 Grand St.	N. Y. Sec. No. 1	E. L. Taylor	26 Cortlandt St.	1st Thurs.	Penn's Hotel
Waterbury	A. S. Jordan	Conn. Lt. & P. Co.			Independent	John Peras	22 New Chambers	2nd & 4th Wed.	226 W. 58th St.
DIST. COL.					Sec. No. 3	L. F. Lwedecke			
Washington			2d Thurs.	Dewey Hotel	Oneonta	B. B. St. John		3d Thursday	Builders' Exch.
FLORIDA					Rochester	Theo. Bens	State St.	Mon. 6:15	
Jacksonville	W. L. Joseph	155 E. Forsyth	1st Tuesday	208 Realty Bldg.	Schenectady	Mr. Spengler	McClellan St.	Subject to call	
Miami	C. E. Pullen	Pullen-Zoll Co.			Syracuse	H. N. Smith	P. O. Box 809	1st & 3d Monday	Gas Office
ILLINOIS					Troy	H. W. Boudey	First St.	Monthly	Elks' Club
E. Moline	E. J. Burns	Rock Island			Utica	Mr. Hall	Gray Elec. Co.		
Chicago	J. W. Collins	179 W. Washington St.	2nd & 4th Wednesday		Westchester	I. W. Austin	White Plains	3d Fridays	Utilities Bldg.
E. St. Louis	O. J. Birmette		Sat. 2 P.M.	Arcade Bldg.	Watertown	L. B. Smith	Roth Block	Monthly	
La Salle	E. J. Burns	219 18th St.	1st & 2nd Tues.	Post Hall	Woodmere	Geo. La Salle	Westbury		
Rock Island	Wm. Schroder	613 Tyler St.	1st & 3rd Mon.	219 18th St.	Yonkers	Mr. Mayer	Manor House Sq		
STREATOR					OHIO				
INDIANA					Akron	L. C. Wall	12 S. High St.	Tues. 3 P. M.	Elec. Co.
Evansville	C. E. Jett		Wed. noon	Y. M. C. A.	Cincinnati	W. R. Keefer	939 E. McMillan	1st & 3d Thurs.	Cham. of Com.
Gary	A. B. Harris	570 Washington			Cleveland	Geo. D. Biery	E. 95th St.	2d Wed.	Builders' Exch.
Indianapolis	G. L. Skillman	29 S. Capitol Ave.	1st & 3rd Thursday	Commercial Club	Columbus	O. A. Robins	Erner Hopkins	2d & 4th Fri.	Builders' Exch.
Warsaw	F. E. Strauss	120 W. Market St	Wed. Ev'g.		Springfield	J. R. Yost		1st Wed.	Nat. Ex. Bank
IOWA					Steubenville	D. C. Hartford		Mon. 6 P.M.	New China Res.
Davenport	E. Burns	Rock Island	2d & 4th Mon.	Rock Island	Youngstown	F. F. McBride	Builders Exch.		
Waterloo	H. L. Hileman	600 Bluff St.			OREGON				
KANSAS					Portland	F. R. Whittlesey	212 Henry Bldg.	2d & 4th Monday	Cham. of Com.
Topeka	H. S. Lee	816 Kansas Ave.	Mon. Noon	Elk's Club	PENNSYLVANIA				
KENTUCKY					Allentown	A. Hill	Bethlehem	Monthly	
Paducah	W. R. Kitterjohn		Last Thurs.		Bethlehem	A. H. Hill	510 W. Main St.		
LOUISIANA					Catsasqua	W. T. Kleppinger		Last Thursday	
New Orleans	R. S. Stearnes	336 Camp St.	1st Weds.	Teocalli Hall	Dubois	C. E. Blakeslee		Monthly	
MAINE					Easton	G. E. Hill	Bethlehem Bldrs. Exch.	Monthly	
Portland	H. T. Boothby	222 Middle St.	1st. Mon.		Erie	Earl Stokes			
MARYLAND					Lancaster	A. Deen	1518 Sansom St.	3rd Friday	Bldrs. Exch.
Baltimore	C. P. Pitt	15 E. Fayette	1st & 2d Tues.	Elk's Club	Philadelphia	M. G. Sellers	10 N. Diamond	2nd Thurs.	Und'r't's Offs
MASSACHUSETTS					Pittsburgh	Geo. Burrows	Bd. of Tr. Bldg.	Tues.	Builders' Exch.
Boston	J. E. Wilson	263 Summer St.	3d Thurs.	Boston City Club	Scranton	A. J. Fowler	Dubois	Mon.	Zenke's
Fitchburg	R. M. Gowell		1st Mon.	Fay Club	St. Marys	C. E. Blakeslee			
Haverhill	H. W. Porter	24 West St.	2d Mon.	El. Lt. Sta.	York	A. E. Harris	E. King St.	2d & 4th Tues.	
Worcester	L. H. Treadwell	681 Main St.	2d Thurs.	44 Front St.	SOUTH CAROLINA				
MICHIGAN					Columbia	E. L. Cashion	Sumter, S. C.		
Detroit	H. Shaw	613 Lincoln Bldg	Last Thurs.	G. A. R. Hall	Greenville	E. C. DeBruhl	Ideal Elec.		
Flint	J. Markle	718 S. Saginaw			TENNESSEE				
Grand Rapids					Chattanooga	Carl Schnider	412 Kirby Av.	Wednesday	Manhattan Cafe
Kalamazoo	M. Randall	Exch. Place	Tues. Noon	Ass'n of Com. Cham. Com.	Knoxville	H. M. Moses	615 Market St.	Noons	Rwy. Lt. Co.
MINNESOTA					Memphis	H. A. Street	285 Madison Av.	Monthly	Allyn Cafe
Duluth	Alfred L. Foster	210 W. 1st St.	1st Tuesday		Nashville	J. B. Mullen	Arcade	1st & 3d Wed.	Tularie Hotel
Minneapolis	A. P. Peterson	2395 University Ave., St. Paul	2d & 4th Tues.	Builders' Exch.	TEXAS				
St. Paul	A. P. Peterson	2395 Univer. Av.	2d & 4th Mon. 6:30 P. M.	Elk's Club	Dallas	P. B. Seastrunk	Lepscombe Elec. Co.	Wed. 8 P.M.	1805 Main St.
MISSOURI					VIRGINIA				
Kansas City	Mr. Brown	809 Delaware	Tues. Evenings	University Club	Norfolk	K. D. Briggs	Arcade Bldg.	Wednesdays	Old Col. Clb.
St. Louis	F. Lyle	Wainwright Bldg.	Wed. Evening	Am. Hotel	Richmond	W. A. Cutlett	Jeff. & Grace Sts		
NEBRASKA					WASHINGTON				
Omaha	T. Mustain	315 Neville St.			Seattle	T. C. Smith			
NEW HAMPSHIRE					WISCONSIN				
Portsmouth	F. C. Hatch	Kittery	2d & 4th Wed.		Milwaukee	Henry C. Hutton	719 Majestic Bld.	2nd Tuesday	Maryland Hotel
					CANADA				
					Toronto	J. A. McKay	110 Church St.	2d Tues.	Bd. of Trade
					Vancouver	P. F. Letts	3044 Granville St		724 Pacific Bldg.

Associations can secure listings here by sending necessary data to the National office

The Next Code Revision

The announced intention of the electrical committee of the National Fire Protection Association to develop the National Electrical Code in the direction of safety to persons, as well as protection against fire, should be welcome news to electragists.

We have heard so much discussion over the "safety to life code," and the "fire code," and a "combined code," that we have speculated at times over the prospect of being obliged to carry about with us quite a little library of books or rules.

Now, at last, the situation wears a more hopeful aspect. We are going to depend upon the same old National Electrical Code, as formerly; but it will be modified and enlarged to include most of the requirements which it is essential that an electragist should know.

It will not be ready for publication this year—as it would have been by following the schedule that had been established, viz.: a new issue every two years; but it will be the better for the delay, for it will have added attractions which will make it the more valuable.

Electragists are now giving considerable thought to the new revision. They realize that their influence in framing the various rules of the Code carries weight according to the intelligent thought which they give to it. They are the ones that use it most, and they are looked to for expressions of opinion in its revision.

Members of the National Association are urged to get into correspondence with A. Penn Denton, 17th and Oak Streets, Kansas City, Mo., who is Code chairman of the National Executive Committee.

Biggest Local Organization

Holds Annual Dinner at Which New Officers are Installed

The Independent Associated Electrical Contractor-Dealers of New York City held their annual election on December 28, at which the following officers were elected for the new year: President, A. Lincoln Bush; first vice president, Harry Hanft; second vice president, Louis Freund; treasurer, Alfred Whiteley; secretary, John Perass; and sergeant-at-arms, S. J. O'Brien. This is now the largest local in the United States, having 150 members.

In reporting the meeting, Louis Freund, chairman of the Press Committee, stated he believed the future success of the organization is assured, as there is such a fine spirit of harmony and coöperation among the members of the body that it would be impossible of belief that any other result could take place.

The installation of the new officers took place on January 11 at the McAlpin Hotel, where a fine dinner was prepared for the occasion.

John Whitehead, the first president of the Independents, presided, and presented to the outgoing president, Mr. Shore, a loving cup from the association, and then proceeded to install the above named officers, with Larry Strauss and Anton Newburger as district representatives.

The honored guests of the evening were "Joe" Forsyth of the Underwriters, "Code at a Glance" Wynkoop of the City Department, "Tom" Spence of the Suburban Board, "President" (New York Electrical League) Walter Neumuller of the New York Edison Company, "Al" Berry of the United Electric, Farquson Johnson of the National Association, "Everywhere" J. P. Ryan, O'Donovan of the No. 1 Association, Funnell of Electrical Merchandising, MacIntyre of the Electrical Development.

Mr. Whitehead turned the gavel over to Mr. Bush, the new president, who, after thanking the members for the compliment paid him, delivered an address the keynote of which was optimism and harmony. Mr. Bush stated that he felt with the coöperation that they have received in the past in the various branches of the electrical industry and their as-

surance of further support during the coming year, together with the easing up of money rates and plans already disclosed for the N. E. L. A. and other big members of our industry, that this ought to be one of the biggest years.

Mr. Bush then called on the guests for a short talk. They were succeeded by the newly-elected officers, Hanft, Freund, Perass and Whiteley, after which the most glorious gathering of the largest local association of the United States, with a determination to continue to do good work, wended their way homeward in a happy frame of mind.

The association meets on the second and fourth Wednesdays of each month, and will welcome visits from any one interested in the electrical industry.

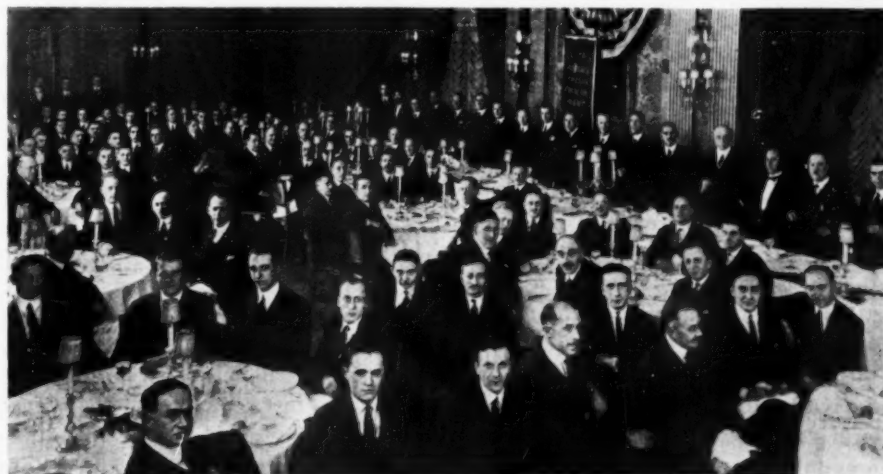
Davis and Chase in Florida

Big Get Together Meetings Held in Jacksonville and Miami

Special Representative Laurence W. Davis and Honorary Member Samuel Adams Chase left New York winter behind them on January 7th and headed for the summer climes of the sunny South. En route to the New Orleans convention they spent a week in Florida, from January 9 to 14, and held meetings in Jacksonville and Miami, with large enthusiastic attendance at each place.

The first stop was at Jacksonville, with a meeting on Wednesday evening, January 11, in the Chamber of Commerce. All of the jobbers coöperated with the contractors in making the meeting a success and a fine turnout resulted.

Mr. Chase illustrated his talk with numerous charts and pictures, and his story of the results of "Harmonizing the Industry" throughout the United



A Fine Spirit of Fellowship Prevailed at the Enthusiastic Gathering of the Independent Associated Electrical Contractors and Dealers Held in the Hotel McAlpin, New York City, on the Evening of January 11

States and Canada was listened to with great interest.

Mr. Davis gave his dynamic talk on "The Obligations of an Electragist," illustrating his remarks with rapid-fire figures on a blackboard, covering overhead, estimating, finding the selling price, turnover and the effect of careless buying and poor collections, etc. He told of the many helps to better business provided for the electragist by the National Association and of the work which the National is doing to improve the conditions of the contractor-dealer branch of the industry.

At Miami the two travelers ran into C. R. Newman, the genial electragist from Passaic, N. J., who made so much money last year that he is spending the winter with Mrs. Newman at that beautiful winter playground.

The largest meeting of local electrical men ever held in Miami met in the City Hall on Friday evening, January 13, to hear Mr. Davis and Mr. Chase. H. H. Hyman, manager of the Miami Light & Power Company, acted as chairman of the meeting. Mr. Newman preceded Davis and Chase, and told of the results of coöperation in New Jersey through their State and National Association and urged the Miami men to "get-together."

Several new members were secured in both Jacksonville and Miami, and plans made for active local work in the future.

During Mr. Davis' visit the Executive Committee of the Florida State Association met and voted to do away with all State dues until such time as funds are needed for some definite work and to make State membership automatic with good standing in the National Association.

It is felt that this will do much to increase the membership in Florida, and efforts will be made to build up a strong organization throughout the State the coming year.

Wisconsin State Meeting

Hubert M. Northrup, secretary, with the help of the other officers, put on a very interesting program at the meeting of the Wisconsin State Association held in Milwaukee on January 24, 25 and 26.

A goodly number were in attendance at the opening meeting of members on Tuesday morning, January 24, when the general registration took place. In the afternoon of the same day, after the general business session, H. C. Hutton spoke on "Scope of Electrical Contrac-

tor-Dealers' Activities as Viewed at the National Association Annual Convention."

After this talk, Mr. Hutton, chairman of the committee for drafting a State licensing law, reported. Copies of the proposed new law were distributed and a general discussion took place, led by Mr. Daniels of the Wisconsin Inspection Bureau and Mr. Hoeveler of the Wisconsin Industrial Commission.

On the morning of Wednesday, January 25, "Some Matters of Common Interest to Electrical Contractors and Central Stations" was the subject of a paper presented by John N. Cadby, the executive manager of the Wisconsin Central Station Association. This paper was followed by an address by H. A. Lewis of Electrical Merchandising on "Business in 1922 and the Electrical Contractors' Opportunities."

The afternoon session was opened with a talk by Farquson Johnson of the National Association on the subject, "Benefits of Organizations In All Industries," followed by District Chairman of the Green Bay District C. E. Kehl's paper entitled "Coöperation Applied in Practice." A banquet and dance was held in the evening.

A general business session was convened on Thursday morning, January 26, at which election of officers took place in addition to a general discussion of topics pertaining to the furtherance of the association, details of which were received too late for this issue.

Buffalo Dealers at Market

Buffalo dealers certainly were out in force at the Fixture Market held in Milwaukee this year. Out of a membership of twenty-six, with only one or two exceptions, all attended and made the trip in a special Pullman.

It seems that every member of the Lighting Fixture Dealers' Society of Buffalo is also a 100 percent member of the National Society. W. A. Hadler, who is president of the National Dealers' Society and ex-president of the Buffalo Society, was escorted to Milwaukee with the delegation.

H. I. Sackett, treasurer of the National Society and president of the Buffalo group, says that much has been accomplished this last year in joint conference with the manufacturers and the glassware guild which will give the fixture business a big impetus in 1922 and materially assist in building up the indus-

try. Building is already under way and much of the work which has been projected will be consummated during the present year. This means business for the glass man, the fixture manufacturer and the dealer.

Mr. Sackett believes there is a great work ahead to stabilize the business and to lift it to a higher plane which, he says, can only be done through the coördination of the three branches of the industry—the glassware guild, the manufacturers and the dealers, as the dealer is the logical contact with the consumer, and the proper outlet for both the glass manufacturer and the fixture manufacturer, and only by intelligent coöperation can the ultimate aims of this great industry be attained.

Windsor District Meetings

Frequent Get Together Gatherings Stimulate Interest

In his opening address at the meeting of the Windsor District Association held on November 30, Chairman V. B. Dickeson explained for the benefit of non-members the purposes of the Association and especially emphasized the value of goodwill on the part of the various branches of the industry. Others who spoke were as follows: M. J. McHenry of the Walkerville Hydro Electric Company; O. M. Perry of the local hydro electric company; Mr. McKeller, Northern Electric Company, and Mr. Firth, Canadian General Electric Company.

Mr. McHenry spoke in favor of the Association work as an all embracing central organization which works as a clearing house for data and information of general value to members. He said the hydro people have no desire to get more than their share of the market, that maintaining the load was their main object, which could be done by boosting the electragist's interests.

Mr. McKeller emphasized the great value of the farmer's trade. He estimated that at least a thousand dollars' worth of business is brought in by the farmer in a five year period. Mr. Firth brought out the fact that competition is the life of trade but he believed that all should work together through the agency of the Association, as such activity is of much value especially in an educational sense.

After a general discussion for the good of the Association work, the meeting adjourned until December 9,

when another meeting was held at which the entire membership was represented. Owing to the nearness of the holiday period, however, only the more important matters of business were taken up. An advertising campaign was planned which would be carried out under the supervision of Mr. McKeller.

Most of the discussion at the meeting on December 30 was centered around Chairman V. B. Dickeson's talk on "Manufacturers Fixing Retail Prices." Mr. Dickeson handled the subject in a very comprehensive manner and his views were greatly appreciated by the members who attended. At the meeting on January 13 O. M. Perry gave the principal address and his remarks were also keenly enjoyed by the attendants.

Penn State Annual Meeting

The executive committee announces the invitation of the Lehigh Valley District Association to hold the annual convention in Allentown on February 15 with headquarters at the Hotel Allen has been accepted.

The program includes the usual noon-day luncheon to insure everybody's getting well acquainted for an intensive afternoon open business session, featuring an open forum period, giving all an opportunity to hear and be heard upon matters of mutual interest. The meeting will conclude with an electrical dinner at six o'clock.

Chairman R. W. Keck and Secretary M. G. Sellers advise that careful preparation has been made for the entertainment of the various interests who have been cordially invited to attend, and they consider that the personal contact at this meeting will result in a decided attempt on the part of all to greatly improve business conditions in 1922.

Massachusetts State Meeting

As the meeting of the Massachusetts State Association held in Springfield, Massachusetts, on January 5 at the Hotel Kimball was not confined to members but was open to all who were in any way connected with or interested in the electrical business, a goodly number were in attendance.

After the business session the election of officers took place and the following were elected: Chairman, Charles P. Whitall, Springfield; treasurer, F. L. Barnes; and secretary, J. E. Wilson, the latter two being re-elected. Then

followed the question box conducted by the state chairman.

After the big dinner, addresses were made by Maurice Sherman, editor of the Springfield Union, Laurence W. Davis, special representative of the National Association, and K. A. McIntyre of the Society for Electrical Development. Community singing was led by J. J. Caddigan of the Boston Edison Company, who is also a popular song writer of the hub city.

Montana State Meeting

From Frank R. Venable, secretary, advice is received that the next convention of the Montana State Association will be held in Butte, Montana, on March 6 and 7. It is hoped that this meeting will help to further the fine spirit of coöperation that prevails in this group, and Special Representative Davis of the National Association will be on hand to give a talk.

Lehigh Valley Electrical Show

On its own letterhead the Lehigh Valley Electrical Show announces that it's off for the finest and best electrical show ever held in that Valley.

E. W. Weaver, advertising and publicity manager, advises the show is to be staged from February 21 to the 25th in the Manhattan auditorium at Rittersville, and that the appointments to date are: R. W. Keck, business manager; E. W. Weaver, advertising and publicity manager; A. S. Weibel, booths, space and exhibition; E. Odenheimer, interior decorating, all of Allentown; and A. W. Hill, secretary and treasurer, of Bethlehem, and W. T. Kleppinger, entertainment, of Catasauqua.

New York Electrical League

The monthly meeting of the New York Electrical League was held at the Hotel Astor on January 11th at which M. R. Bump, president of the National Electric Light Association, was the guest of honor. Mr. Bump was the speaker of the day and was introduced by Arthur Williams, general commercial manager of the New York Edison Company and past president of the Electrical League.

The following officers were installed for the ensuing year: President, Walter Neumuller; 1st vice president, Fred H. Leggett; 2nd vice president, Wm. T.

Dippel; treasurer, L. L. Strauss; secretary, Albert Goldman.

Directors for a term of two years: Jas. R. Pollock, Jas. H. Betts, J. Wynne Jones, Roger Williams, A. Lincoln Bush, A. F. Berry. Directors for a term of one year: Frank E. Watts, H. M. Walter, Ben J. Aplin, Grant Armor, F. S. Hartman, Wm. L. Goodwin.

Better Business Drive

N. E. L. A. Gets Behind Movement to Promote Industry Nationally

At the call of Milan R. Bump, president of the National Electric Light Association, fifty leaders representing all branches of the industry assembled in New York City, January 9th, to discuss plans for a national drive for more and better business.

President Bump stated that for the first time in five years the electric light and power companies can take new business with reasonable certainty that finances for extensions could be arranged for at fair rates for capital. He presented the unanimous opinion of the officers of the N. E. L. A. that the Association should enlist the coöperation of every other electrical organization to promote business development.

After full discussion, the meeting voted unanimously to support the suggestion of the N. E. L. A. for a national More and Better Business drive.

A committee was elected to work immediately under the direction of the N. E. L. A. in developing and carrying out plans. This committee will be known as the Joint Committee for Business Development, and will act with the Commercial Section of the N. E. L. A. and with all other electrical organizations.

Upon adjournment of the meeting, the Joint Committee for Business Development convened and appointed subcommittees to carry on the work.

The Joint Committee for Business Development divided the proposed activities into three general groups, as follows: Lighting, home lighting, commercial and industrial lighting, street lighting and sign lighting; appliances, household and commercial; industrial power, industrial heating, isolated plants, city pumping, ice, refrigeration and electric vehicles.

While the above suggestions for proceeding with the acquiring of new business necessarily are general the committee believes that because of the wide diversity of conditions many companies

will have suggestions to make which will add materially to this program and the committee hopes to receive immediately such suggestions in writing, addressed to the undersigned.

Members of all electrical organizations and associations are being informed of the More and Better Business movement through their own officers. As the plans are worked out, printed pamphlets and a prospectus will be forwarded to members of the N. E. L. A. and of other organizations interested.

Activities in Wisconsin

In order to begin the new year right the Electrical Development Association of Wisconsin begun the issuance of a weekly bulletin the first of January to keep members posted on the progress and activities of the Better Lighting Campaign.

This campaign has been in full swing since early in December. In addition to extensive advertising in newspapers and other mediums, general meetings and even special classes in better lighting have been held at which addresses were made by Dr. M. Luckiesh, Professor F. C. Caldwell, F. A. Vaughan and other leading lighting men in the industry.

Denver's First Home Electric

Interest in Initial Project Rapidly Developing Through Cooperative Movement

Drawings for the appliances to be displayed in Denver's first electrical home which will be opened soon was the feature of the December general meeting of the Electrical Coöperative League in Denver. Over one hundred were present and the competition in the drawings together with enthusiasm over the co-operative advertising campaign made the meeting even more successful than those held in previous months.

The League sent out questionnaires before the meeting to all its members asking what each one thought as to the appliances going into the home. The replies received enabled the committee consisting of John J. Cooper, Alex Hibbard, N. R. Crooks and R. W. Elliott to tabulate the equipment for the home.

For those items in which only one firm was interested no drawing were held. Likewise when one firm drew one of the major appliances, such as the range or washing machine, it was pre-

cluded from further drawing on that class of equipment.

The drawings were conducted along the lines recommended by a previous committee. Its report provided for the drawings to be made between the distributors which included all the jobbers, several retail dealers who are distributors and those manufacturers who held League membership but who did not have an outlet for their goods through a member.

The committee now has a list of fifty different appliances which will be placed in the home ranging from the heavy laundry equipment to a boudoir incense burner. It was announced that these appliances would not be installed until all the furnishings had been placed in the house by the Daniels and Fisher Company, one of Denver's leading department stores.

This store believes so thoroughly in the electrical home idea that the merchandising manager, A. B. Trott, has laid out on the furniture floor a complete five room house with walls and all the features of a home, excepting that one side of the room is left open. Proper lighting and plenty of convenience outlets are provided for this novel store demonstration.

The same committee which handled the appliance drawings also made arrangements for the supply of the fixtures. Their design is being developed in accordance with the scheme of interior decoration which is under the direction of Miss Marjorie McBride, it was announced at the meeting.

According to T. O. Kennedy the League chairman, interest in the coöperative movement is rapidly increasing and he feels that with the opening and display of the first home, the way will be paved in Denver for numerous other electrical developments.

League Fund Subscription

According to advice from the Cleveland Electrical League reports on cards turned in to date show subscriptions from last year's subscribers to the general fund from 75 percent to 200 percent of the amount subscribed to the 1921 fund. It is reported that over \$17,000 has already been subscribed.

Many firms who did not subscribe to last year's fund are said to have subscribed liberally to the fund this year. From a partial list of subscribers is noted the following electragists: Den-

zel Electric Co., Electric Construction & Sales Co., Enterprise Electric Construction & Fixture Co., Martien Elec. Co., Merrell Sharp Electric Co., Parker Electric Co., and Pfahl Co.

Issues New Bulletin

The Electrical Coöperative Association of Quebec begun its second successful year by publishing in the latter part of December a members' bulletin, which will be issued at various periods.

In the first issue the new secretary-manager, Louis Kon, says: "There is hard work, mountain high, before us to be accomplished, but there are no impossible tasks, though some of them may seem such. The Irish question is settled."

Adds to Good Name

The Monthly Sales Service issued by the Society for Electrical Development came out in January with Electrical Digest added to its title. Both size and form are greatly improved, and its future policy is explained in its editorial announcement as follows:

The Monthly Sales Service will continue to supply Society members with ideas, plans and suggestions to aid them in selling the idea of "Do It Electrically;" but you will notice a change. There will be fewer "articles," inspirational or "How To." There will be items of timely interest and value; stories of what has been successfully done. There will be news of your Society—what it is doing for members individually and what it is doing to carry out its primary object of teaching people to "Do It Electrically."

Luck is 10 percent inspiration and 90 percent perspiration.



Messrs. Hofrichter, Wolf and Ferris, Representatives of the Three Great Branches of the Lighting Fixture Industry, Who Were Largely Responsible for the Success of this Year's Fixture Market Diagram Showing How Light Should be Kept Within Case

The Relation of the Electragist to the Industry

By J. E. BULLARD

Talk by Special Representative Davis of National Association at January Meeting of Rhode Island Electrical League

"This is the first time," said Harry G. Lendrim, Vice-president of the Master Contractors' Association of Providence, R. I., "that I have ever heard a speaker say a good word for and bring a really constructive message to the contractors. Every contractor in the city ought to hear this talk that Mr. Davis has just given us. I'm sorry that more are not present here tonight but I want Mr. Davis to come again and talk to the contractors alone. If he will I'll promise to get all the contractors out to hear him."

This excerpt from the little talk Mr. Lendrim gave when he made a motion that a rising vote of thanks be given to the speaker indicates how well the message brought to the Rhode Island Electrical League by Laurence W. Davis, special representative of the National Association of Electrical Contractors and Dealers was received. The meeting was held on the evening of January 3 at the Green Lantern Tea Rooms in Providence.

Coming directly after the New Year and the weather that night being bad the attendance was small. What it lacked in numbers, however, was made up in interest.

Mr. Davis talked upon the subject of "The Relation of the Electragist to the Industry." He opened his talk by telling how the new words adopted by the association were coined and what each meant. This was done because the questions asked him before the meeting indicated that the true meaning of all these words was not entirely clear to all those present.

Keystone of Industry

He then showed that the electragists are the keystone of the electrical industry. The development of the industry depends upon them more than upon any other class. The manufacturers and jobber cannot sell their products and the central stations cannot sell current unless the contractors and dealers—the electragists—do their work well.

What is accomplished is up to the individual. Each individual must do his part. The industry is held back by all those who do not measure up to their opportunities.

The talk was illustrated by a series of charts and by the working out of actual examples. The first chart dealt with the fundamentals of a successful business man. First he must have a definite purpose and the prime purpose is to make money. Next is to serve well.

Mr. Davis stated that as he traveled from city to city he would be shown these cities and would invariably have some large and attractive residence pointed out to him. In that house lived the big man of the city. This man had accumulated a fortune. His advice was sought by his fellow citizens. He gave large sums to hospitals and charities. He was a big man in his community very largely because he had been a successful business man and made money.

Never, said Mr. Davis, had he found that this man was an electragist. He might be a banker, a retailer, a manufacturer, possibly the man at the head of the central station but never a contractor-dealer. The electragist should aim to become such a man. Unless he makes money he can never be the big man in the community that he should be.

Some Essential Qualifications

Then the electragist should have a strong character. Success in business depends more upon character than upon any other one thing. A man without money, without credit, but with character can make a success in business.

Coöperation is also necessary. Without coöperation nothing great can be accomplished. Through coöperation in the National Association the best ideas and the best methods of all the men in the industry are gathered together and distributed to all the electragists. It is only through coöperation that great growth is possible.

Service is an obligation that a man owes to himself, to the industry, and to the public. It is the rendering of good service that makes a man big, and the electragist is a big man. The only way that he can be as big as he should be is through coöperation.

Location is of prime importance and the rent that must be paid for the location is of secondary importance. It has been found that the rent amounts

to but about 1.51 percent of the total overhead. This means that the man who thinks he has a low overhead because he has a low rent is fooling himself. If he is a dealer as well as a contractor he must be in a good business location or the saving in rent may increase rather than lower his total overhead. The location must be one that is suited to the business.

Then there must be an intensive use of the windows, the store and of salesmanship. This means spending some real time and money on the window displays. Bringing the stuff out of the store room in the rear every few weeks and piling it in the window is not the right way to use the windows. Thought and money is required to make good window displays.

Salesmanship Big Factor

The store must be made attractive and there must be real salesmanship in the store. If the owner isn't a salesman he should hire some one who is. If he is a good salesman he should teach those under him how to sell. Every person who cannot sell should be kept out of the store and not allowed to come into contact with the public.

Mr. Davis then told of actual instances he had found of poor salesmanship in dealer stores. In one case a man figuring an estimate did not want to be disturbed to make a sale. In another case there was a girl in the store who knew nothing about the stock. The store door was kept closed in warm weather and it required real courage on the part of anyone to spend money in that store.

The organization of a business concern determines the growth of that concern. Even if it is a one man concern the functions of the executive, of the manager, the functions of the accounting department, of the financial relations, of the stock department, the selling, the service advertising and the display must all be performed. The financial relations are of very great importance. No matter whether a man needs to borrow money from his bank or secure an extension of credit from his jobber, it is good business to give

his banker and his jobber an honest statement of the exact condition of his business each month.

Honest Statements Beget Confidence

This may not be just the sort of statement that he would like to give his banker and his jobber but doing so means that both his banker and his jobber will have more confidence in him. The practice shows them that he knows exactly where his business stands and leads them to be more liberal with credit and loans than otherwise would be the case.

Accounting consists of a knowledge of purchases and of the amount and class of goods on hand. It shows the cost of doing business, the overhead, the turnover, the amount and source of the sales in both the contracting and the store sales. It shows the financial condition of the company, which data serves to gain the confidence of the creditors, jobbers and the bank.

Mr. Davis then showed a chart giving the average percentage of the seventeen different items of overhead and a total overhead of 23.63 percent of sales as shown by the latest data compiled by the association. He used this data to show how to figure overhead, that it must be figured on the selling price and not on the cost price.

If the overhead is 23 percent and it is desired to make a 10 percent profit, adding \$33 to a job that costs \$100 to do does not give this profit. If the job is done for \$133, the overhead and profit will be respectively, \$30.59 and \$2.41. When a man figures that way he can't make a profit and do a good job.

The Job's Cost

The price of a job is made up of cost, overhead and profit. If the overhead is 23 percent and a profit of 10 percent is desired then the cost represents 67 per cent. Then to find the selling price of the job we divide the \$100 cost by 67, and we get a selling price of \$1.49. Mr. Davis illustrated this by showing the operations on the board.

He showed that when buying stock not so much attention should be given to discounts as to the fact that the stock pays rent. If the dealer doesn't pay his rent the landlord puts him out. The dealer should be just as careful about making his stock pay rent because if the stock doesn't pay rent, he will not have the money needed to pay the rent to the landlord.

In buying, quantities and turnover must be carefully considered. The buy-

ing should be done from the local jobber in order that the dealer be not called upon to do warehousing. The stock must also be watched to prevent in so far as possible depreciation, waste leakage, and dead stock.

Mr. Davis showed by an example just what turnover means. He showed that the cost of the goods is divided into two parts. There is a cost added to it from the time it comes into the store until it is sold and the cost continues to be added until the money is collected for it. He then showed how much difference there is in the actual profit made if instead of having the goods in the store 120 days and taking 120 days to collect for it, the goods are in the store only 30 days and are collected for within 30 days after they are sold.

Slowed Up Turnover Harmful

These examples made it perfectly clear that no ordinary discount would offset a slowed up turnover. It also showed why when a man starts in business with practically no money he makes money right along until he has accumulated a little reserve and then begins to go down hill or at least not to make as much as he did. When a man has enough money so that he can allow the turnover to slow up he slows up his profits.

In selling the great need is competent sales people. It is not how large a salary that must be paid so much as how much the salesman earns that counts. The person who must be paid \$65 a week but who earns \$100 for the dealers is far more profitable to him than the one who is paid only \$15 a week but earns nothing. It is the sales made and the good will created that counts and not the money paid in salaries and commissions. The important thing to be sure about is that the people selling are earning all and more than they are being paid.

The sales plan should be budgeted. There are certain times of the year when special drives can be made of certain articles to greater advantage than at other times. The sales plan should take these conditions into account and the sales plan budget should be such that at all times the greatest sales are being made with the least cost and effort.

Courage and Code of Ethics Needed

Mr. Davis spoke of the need of courage and of a code of ethics. If you go into a well managed retail store the price asked is not reduced for you even if you refuse to buy. When a con-

tractor has figured a price on a contract he should stick to this price and not worry about who will get the job. When he is selling appliances he should stick to a price and conditions of sale that will give him a profit. If he does not he cannot remain in business and give real service.

It is necessary to advertise systematically if the desired results are to be obtained. From 3 to 5 percent of sales is used for advertising by successful business men. The electrageist is using only about 1 percent. They should use not less than 2 percent and half of this should be spent during the first six months of the year and the other half during the next six months.

This may well be divided in the ratio of $\frac{1}{4}$ of one percent for coöperative advertising and $\frac{3}{4}$ of one percent for individual advertising during the six month periods. If this is done the electrageist is going to get the publicity that he needs.

Mr. Davis then outlined the progress of the National Association of Electrical Contractor and Dealers. Those present expressed more than an ordinary amount of interest in the work of the association. No effort was made to increase the membership but after the meeting a number of those who do not belong to the National Association began talking seriously about joining.

Architects Hold Exhibitions

At the great architectural exposition that was held for a month in New York City under the auspices of the Architectural League of New York it was realized that the coördination of the arts, trades and sciences which go to make up the completed structure would benefit materially by more direct attention.

For this reason an aggressive policy has been adopted of bringing the various electrical concerns to the architects and the architects to the electrical concerns so that they may better understand what each can produce and the advantages the designer will get by having this knowledge.

The results of this getting together should prove a great benefit not only to the electrical concerns and the architects but to the general public as well. It is with this idea that periodical exhibitions are held at the League's rooms at 215 West 57th Street, New York City, where electrical appliances are displayed. These exhibitions are open not only to the members of the architectural profession but also to the public at large.

S. E. D. Staff Dinner

The members of the office and field staff of The Society for Electrical Development proved themselves to be good coöperators when they staged a most successful get together dinner recently at the Hotel Lafayette in New York.

The Electrical Rampage and Social Shock, as the affair was called, was attended by over thirty members of the Society's staff and their wives.

O. C. Small of the publicity department acted as electric toastmaster and kept things moving with electrical swiftness.

While shop talk was barred at the dinner the staff of the Society feel so elated over the success of their undertaking that they will be glad to give pointers on how to put on a successful company entertainment to any member contemplating such a builder of esprit de corps.

Denver Holiday Lighting

What is considered by many as the foremost example of coöperation in civic development in the United States was the electrification of the civic center in Denver during the holidays.

Ornamental lighting standards were clothed with evergreens and the lamps were changed to red and green, while the Greek theatre and Voorhies memorial were artistically draped in such a way as to take advantage of the unusually effective lighting arrangements.

The most prominent feature in the display was a 70 foot Christmas tree illuminated with 1,800 varicolored lamps and surmounted with a white star of dazzling brilliancy. Streamers ra-

diated from the tree itself to an outer circle of trees which were backed by the classic structures of the civic center.

The Denver Gas and Electric Light Company made the installation in conjunction with the city authorities. City firemen assisted in the work. The Electrical Coöperative League of Denver supported the movement as part of its civic development program, and it is reported that T. O. Kennedy, the League chairman, through his company and with D. C. McClure, his assistant, is entitled to a large portion of the credit for producing such an effective display.

Builds Own Home Electric

A letter has just come in from Arthur P. Peterson, the energetic young secretary of the Minnesota State Association, stating that for sometime he has been devoting much attention to the building of his own home electrical, and has deferred the enjoyment of many of his pet hobbies until its construction is well advanced. He seems to believe in keeping a weather eye on the architects and building contractors to see that they do not put anything over on the electragnists by overlooking any places for possible installations of things electric.

Mr. Peterson says his home, which is located in Minneapolis, is certainly going to be a home electrical, and he has seen to it that there are upwards of a hundred convenience outlets in it. Perhaps, however, a little of his manifest enthusiasm is due to the fact that he has just recently been married—December 9 last, he advises, being the time of his

taking the matrimonial vows—an event that causes all to be doubly keen on proper things for the home as well as the right kind of home.

Partnership Dissolved

Notice is received that the partnership between the electragnists, Robert W. Keck, and George P. Psotta, trading under the firm name of R. W. Keck & Co., has been dissolved as of December 31, 1921, by the retirement of Mr. Psotta.

All outstanding accounts will be collected and all partnership debts will be paid by Mr. Keck, who will continue the business under the same name as formerly at 1008 Hamilton Street, Allentown, Pa.

Trade Publicity

A series of blotters have been distributed to the trade by the Barrows Electric Shops, Inc., of Pittsburgh, Pa., setting forth the comforts and conveniences of electricity in the home. The slogan of this electragnist is "Things and Doings Electrical," and it is noted that the pictures on the blotters, each of which is different, illustrates up-to-date methods in every particular, and especially emphasizes the convenience outlet.

Cashes in on Electric Show

Members of the electrical industry in Spokane, Washington, were not content merely to hold a successful electrical show and then forget about it until next time. Instead, immediately following the electric show held in the early part of December, about fifty representatives



Christmas Tree and Civic Center Illumination at Denver, Colorado

of each branch of the industry gathered together and held a businesslike conference on how to cash in on the electric show.

The keynote of the meeting was sounded by Lewis A. Lewis, sales manager of the Washington Water Power Company, who said in part: "We in the electrical industry are not competitors. Our competitors are the fellows who have something besides electrical supplies and service to sell the public. The reason for holding educational exhibits similar to the electric show is to present to the people a display of their electrical servants and to sell them the electrical idea. In order to cash in on our efforts we must continue along the same lines of co-operative, educational work."

Second Electrical Home

The second home electrical held in Oregon under the auspices of the Northwest Electrical Service League was at The Dalles, December 17, 18, and 19 inclusive, and brought before the people of the community the advantages of doing it electrically in a new and emphatic manner.

Albany Election Meeting

At the first 1922 meeting of the Albany Electrical Association held on January 5, the following were elected to the executive committee: A. Anderson, chairman; T. G. Grady, E. J. Murphy, G. N. Wark, and the newly-appointed secretary and treasurer, Charles Russell. Also elected as executive committeemen were: Arthur L. Lyness, representative of the State Executive Committee, and Fred H. Newman, representative of the Joint Conference Committee.

What Membership Means

At the annual dinner of the New York Electrical Credit Association held at the Builders' Exchange on December 14 in answer to the question "What does membership in this Association mean to you?" it was brought out that during the year only 84 percent. of the membership took advantage of the service of the organization.

The total amount of the accounts reported was 4080 amounting to \$735,053. Of this amount 90 percent. was settled.

After the business meeting members and guests sat down to a delightful dinner during which a capable song leader

kept the diners singing between courses.

The newly elected officers of the association are as follows: President, F. A. Booth, of the Westinghouse Electric & Manufacturing Company; vice president, H. P. Litchfield, Western Electric Company; treasurer, G. H. Potter, Sprague Electric Works. The secretary, W. J. Kreger, was reappointed, with the office of the association at 47 West 34th Street, New York City.

Worcester District Meeting

On the evening of January 13, at the usual meeting place the Worcester Automobile Club rooms, the Worcester District of the Massachusetts State Association held its annual meeting. The evening was devoted to the hearing of reports of officers and standing committees, and informally considering plans for the activities of the coming year.

E. Miller Fay, the E. M. Fay Electric Company; F. L. Ham, Delta Electric Company, and E. A. Bruce of the E. A. Bruce Electric Company, were elected to the executive committee, who elected the following officers: Chairman, H. D. Stokes, Worcester Electric Light Company; treasurer, P. J. Latour, 3 Montrose Street; secretary, J. W. Coghlin of the Coghlin Electric Company.

Urges Convenience Outlets

R. S. Hale of the Boston Edison Company, who is also chairman of the N. E. L. A. Wiring Committee, recently sent out a letter to the wiring contractors of Boston urging the installation of convenience outlets, as follows:

You are doubtless familiar with the fact that as a result in part of the efforts of the Wiring Committee of the National Electric Light Association, practically all the manufacturers and dealers of electric appliances have agreed on a standard plug and standard receptacle. The plug is the small plug with the parallel blades and the receptacle is adapted to receive not only the small plug with the parallel blades, but also the old fashioned plug with the tandem blades. This is the receptacle known as the double T.

There are, however, still in use a great number of old fashioned receptacles of various types that will not take the standard plug with parallel blades.

In some cases adapters permit the use of these old receptacles, but even these adapters are a nuisance. As time

goes on these old non-standard receptacles will become more and more of a nuisance and people will gradually change over the old fashioned receptacles to standard, just as they changed their old T. H. sockets to Edison sockets.

This situation gives you a chance to get a little extra work. When you put in new receptacles, of course you are putting in only standard receptacles. When you do this in a wired house you will find at times old fashioned non-standard receptacles which ought to be changed. Here you may pick up quite a nice little business in total, even though each job may not be very large.

Then very likely you will be able to get orders for putting in new receptacles, because there are very few houses where there are really enough receptacles so that the user can use regular lamps, coffee percolator, toaster, vacuum cleaner, fan, and portable lamps just as much as he would really like to, and a few extra receptacles put around the baseboard or in the walls are something for which it ought to be easy to get orders.

Kitchener Electrical Show

Preparations for the Kitchener electrical exhibition—the first ever held in Canada—scheduled to take place early in May are now well under way. This exhibition has the endorsement of all of the various electrical interests throughout the province and is expected to be a great success.

Exhibitors from the United States as well as Canada are expected to take space in the huge auditorium that is being specially arranged to accommodate many unusual exhibits. Everything from electric ranges to electric toasters will be shown in the cooking line. Fans, heaters, vacuum cleaners, washing machines, flatirons, curling irons, water heaters and the entire line of appliances that save time and labor in the home will be on exhibition.

Elaborate arrangements are already being planned throughout the city to make the show the principal attraction in the city during the time it is in progress. It is intended to place a gigantic searchlight on the roof of a centrally located building which will be played on the various sections of the city to tell everyone of the big event in the electrical world that is going on locally.

The Twin City Electrical Exhibition, as the show is called, will eclipse any-

thing in the way of an exhibit that has ever been given in the city of Kitchener; in fact it will be the most comprehensive demonstration of the uses of electric energy that has ever been seen in the history of Canada.

Denver Waffle Eating Contest

Westinghouse electric waffle irons were given the supreme test during the electrical week recently held in Denver under the auspices of the Electrical Co-operative League.

As one of the features held daily in a downtown dealer's store, a waffle eating contest was staged between three negro boys from one of Denver's settlement missions, in the windows of the Denver Gas and Electric Light Company.

Tom Yonley of the Mine and Smelter Supply Company, Westinghouse distributors in the rocky mountain territory, lost track of the waffle consumption after one of the boys had put away thirty-five of the crisp, flaky cakes swimming in butter and syrup. Assisting Mr. Yonley in putting on the display was M. E. Lanning of the Westinghouse Company and R. G. Gentry, assistant commercial manager of the Denver Gas and Electric Light Company. Miss May E. Butterfield, a Westinghouse demonstrator, presided over the waffle irons.

According to Clyde H. Osborn, ad-

vertising manager of the Mine and Smelter Supply Company, who originated the contest, the window demonstration, because of its novelty and human appeal, proved an excellent advertising medium judging from the sales which were made and the inquiries received after staging the contest.

Unique Lighting at Brooklyn Exposition

Special lighting, the plans for which were devised by the illuminating engineering laboratory of the General Electric Company, was a feature of the Brooklyn Manufacturers' Industrial Exposition held in the Twenty-third Regiment Armory, that city, during the week of January 15.

The lighting unit consisted of classic lanterns equipped with Mazda lamps. For the general illumination the lanterns, each containing a 1,000-watt lamp, were grouped in clusters of five and suspended from the ceiling at appropriate points.

This general lighting was supplemented by single lanterns hanging pendent around the periphery of the ceiling and underneath the balcony, each of which contained a 500-watt Mazda lamp.

The space for exhibits was defined by ornamental posts surmounted by lanterns containing 500-watt Mazda lamps.

The stippled glass panels in the lanterns, illuminated by the warm tinted light from the Mazda lamps, and the light further tinted by reflections from colored decorations, created an attractive and cheerful atmosphere unique in the lighting of interiors.

Membership Suggestions

Why You Should Belong to Your Trade Associations

The following reasons for joining local, state and national associations are used by Secretary J. E. Wilson of the Massachusetts State Association:

Men of broad mind realize that they are directly profited through the educational advantage gained by association and interchange of ideas with others in the same business.

You are now a member of some civic, political, religious, or fraternal organizations from which you derive some benefit. Why not join an Association of your own trade from which you gain your livelihood which will help to give you the monetary results that helps you to belong to the first mentioned class of organizations through being a more successful business man?

The average individual takes some pride in letting his fellow business associates know that he belongs to a trade association that helps him to serve the public by furnishing better materials, workmanship and engineering skill.

Is it fair for an individual not to belong to a trade association, and to an extent benefit by the work of his business associates who are giving up some of their time and money for the benefit of the industry? Why not belong and gain the full benefit?

The tax for belonging to the National Association of Electrical Contractors and Dealers and its allied local association is very nominal. The price charged for your Association membership is recovered by the use of its trade price and engineering data book and the work the National body is doing on the codification of insurance regulations, industrial insurance, estimating and cost accounting, and its coöperation with the allied industries for the more profitable workings of trade relations. As an illustration; the standardization of electrical fittings with the manufacturers, not only on quality and design, but packing and method of assembly.



Waffle Eating Contest Staged in Window of Denver Gas and Electric Light Company During Electrical Week in Denver

Why are manufacturers and supply jobbers interested that contractors should belong to the National Association of Electrical Contractors and Dealers? Because they realize that the general influence of this Association is to create a better class of business men with whom to carry on relations.

The trend of the times is towards organization and the cumulative strength and knowledge gained by such. Individuals and industries who are blind to or neglect its advantages will lag behind in the world's forward progress.

Wireless Show Staged

In order to give the public an opportunity to inspect reliable wireless apparatus, a wireless show was arranged by the Newark Electrical Supply Company of Newark, N. J. This show, which was held in the offices of the company, was open every week day from two o'clock in the afternoon until ten in the evening. Admission was free.

This company has also arranged a free course of lectures to be given in its offices on the installation and use of wireless apparatus.

Midwest Advertising Campaign

Holiday buying was greatly promoted in Salt Lake City by an extensive advertising campaign that was carried on in the early part of December. A leading daily of that city on the Sunday of December 4th issued an eight page electrical section devoted to electrical merchandise advertising news and general information. The first and last pages of this section were in color.

In conjunction with the advertising

campaign a prize contest was held. Prizes were offered for the greatest number of sales tickets on purchases of any kind of electrical appliances amounting to \$1 and over, the first prize being an electric range. In addition to the prize for the greatest number of tickets were three prizes for the three greatest single purchases.

Society Issues New Booklet

To sell the idea of more time for the enjoyable things of life is the primary object of a most attractive and unusual little booklet which The Society for Electrical Development is ready to distribute. "More Leisure Hours" is the title, and in 24 entertainingly written and illustrated pages the booklet tells how hours of drudgery may be eliminated by the use of electric service and appliances.

Each page points out the service of one appliance as an aid to better and more economical living. While no too obvious attempt is made to sell, few readers of the booklet can escape the desire to buy and use more electrical aids.

Without appearing to teach, the brochure also explains in simple and understandable language the meaning of the more commonly used electrical terms and definitions.

"More Leisure Hours" is a booklet which central stations as well as contractor-dealers will find invaluable. It should be placed in the hands of all users of electric service and all prospects for service appliances or lighting. It will appeal particularly to women as the copy was written by a woman, but men too will find between its covers much of interest.

Companies who have resolved to go

out energetically during 1922 for "More Business, Better Business," will find in this little booklet a timely and effective selling aid.

William O. Fouch Dies

On October 26th, the electrical industry of Portland and Oregon sustained an irreparable loss in the death of William O. Fouch, president of the Western Electric Works.

Mr. Fouch was instrumental in organizing the first state association of electrical contractors in Oregon and served as president of the organization on two different occasions for a period of years. He was one of the most active members up to the time of his fatal illness.

Awards 1921 Edison Medal

The Edison Medal for meritorious service in electrical science or electrical engineering or electrical art has been awarded for the year 1921 to Cummings C. Chesney, chief engineer and general manager of the Pittsfield Works of the General Electric Company.

This award, which is made by a committee of twenty-four members of the American Institute of Electrical Engineers, and which is among the highest honors of the kind in the field of electrical engineering, was made to Mr. Chesney for his work in the development of transmission apparatus, generators, condensers, transformers and converters during his association with the late William Stanley of the Stanley Electric Manufacturing Company of Pittsfield, Mass., which concern was amalgamated some years ago with the General Electric Company.

News Notes Concerning Electrical Contractor-Dealers

Business Changes, Store Improvements, and New Establishments Opened

Ralph Butler has opened a new electrical supply store at 116 Washington Street, Binghamton, New York.

Noble Electric Company is opening a new electrical contracting and appliance business at 42 West Street, Middletown, Connecticut.

Auto Electric Service Shop of which George Benn, Jr., and W. A. Caldwell are proprietors, is reported to have opened a new store carrying a full line of electrical appliances at 309 West Second Street, Grand Island, Nebraska.



The Arrangement Committee of the New Orleans Mid Winter Meeting of Electrical Interests. From Left to Right, W. E. Clements, Lyman C. Reed, Robley S. Stearnes, General Chairman, Frank H. Ames, and C. S. Barnes, all of New Orleans

Mayfield Electrical Company has opened a new appliance store at South Euclid, Ohio. Incorporated capital, \$10,000. Incorporators: W. T. Amos and others.

F. A. Jenkins is opening a new electrical contracting store and salesroom at Prospect Street, Brewster, New York.

Calumet Auto Supply Company of which E. M. Stearnes is proprietor, will open a new store carrying a full line of auto accessories, tires, and electrical appliances at 907 Wabash Avenue, Terre Haute, Indiana.

Eureka Electric Company is reported to have opened a new electrical and auto supply store at 698 Coney Island Avenue, Brooklyn, New York.

Russell Goomble and Arthur Fritz will open an electrical supply store at Geneseo, Illinois.

Central Electric Company of which E. P. Violette is manager, has opened a new store carrying a full line of electrical supplies at 132 North Market Street, Wichita, Kansas.

Thor Electric Shop is open for business at the Cal. Burn Building, 207 Third Street, N. W., Canton, Ohio, where electrical appliances will be carried.

James Capen is reported to have opened a new electrical supply store at 512 South Ohio Street, Sedalia, Missouri.

Strauss Electric Company is opening a new store at 4224 South Vermont Avenue, Los Angeles, California, where a full line of electrical supplies will be carried.

C. A. Taylor has opened a new electrical appliance store at Alderwood Manor, Washington.

Manning Electric Company will open a new supply store at Del Rio, Texas.

Atlas Lighting Fixture Company is reported to have opened an electrical appliance and fixture business at Cleveland, Ohio. Incorporated capital, \$10,000. Incorporators: Z. Goodman, 603 Republic Building, and others.

Traverse Electric Company is opening a new appliance store at 9686 Traverse Avenue, Detroit, Michigan.

Luetkins & Lassallete are opening a new store at Roodsburg, Wisconsin, where a full line of electrical appliances will be carried.

R. & D. Company will open an electrical supply business at 405 West Jefferson Street, Ft. Wayne, Indiana. Incorporated capital, \$100,000. Incorporators: R. Dun's and others.

Scott & Buttner will open a new electrical supply store at 11 Grand Avenue, Oakland, California.

Wm. A. Ratham is reported to have opened a new electrical supply and plumbing business at 2024 Grand River Avenue, Detroit, Michigan.

Electric Supply Co., Inc., has opened a new store at Marshalltown, Iowa, where a full line of electrical supplies will be carried. Incorporated capital, \$50,000. Incorporators: A. D. Carpenter and others.

Percy Barker is opening a new electrical contracting and supply store at Kent Cliffs, New York.

Harry R. Thornburg has opened a new electrical supply store at Ocean Front and Wave Crest, Venice, California.

R. Johnson is reported to have opened a new store carrying electrical supplies at 28 Oak Street, South Manchester, Connecticut.

Utility Repair & Sales Company will open a new electrical appliance store at 1409 Dryades, New Orleans, Louisiana.

Combs Electric Company is opening a new appliance store at Benton Harbor, Michigan. Incorporated capital, \$5,000.

Roodhouse Electric Company is reported to have opened a new supply store at Roodhouse, Illinois.

H. C. Hammond has opened a new electrical supply store at Clinton, Iowa.

Galloway Electric Shop of which Lyon Galloway is proprietor, is opening a new supply store at Xenia, Ohio.

Royal Electric Company of which Achenback and Hale are proprietors, will open a wholesale and retail store carrying electrical appliances and supplies at Front Royal, Virginia.

E. A. Daniels is opening a new electrical contracting business at West Long Hill, Middletown, Connecticut.

Delta Electric Company is opening an electrical contracting business at 17 Warren Street, Concord, New Hampshire.

Granada Electric Shop is reported to have opened a new electrical appliance store at Sunset Blvd. and Vista Street, Los Angeles, California.

Howell & Campbell have opened a new electrical store at Park Avenue, Scotch Plains, New Jersey.

Rudolph Johnson is reported to have opened a new electrical supply store at 28 Oak Street, Manchester, Connecticut.

A. Givens has opened a new store carrying electrical supplies at Marlborough, New York.

Mahlon H. Hartley will open an electrical supply store at Carlisle Street, Gettysburg, Pennsylvania.

Bush & Reif have opened a new electrical supply store at Union Springs, New York.

James E. Brodie is reported to have opened an electrical supply shop at West Portage Street, Cuyahogax Falls, Ohio.

E. E. Lynch is opening a new store carrying a full line of electrical supplies at Hilmar, California.

C. T. Riggs has opened an electrical appliance store at Independence, Oregon.

Barrien & West will open an electrical appliance business at 124 North Main Street, Hightstown, New Jersey.

Eiden Electric Shop has opened at 603 Pittston Avenue, Scranton, Pennsylvania.

H. H. Hansen is opening a battery service station and electrical appliance store at Independence, Oregon.

W. C. and W. F. Henderson have opened a new electrical supply store at St. John, Kansas.

Sahli and Harris will open an electrical repair shop at 61 River Street, Sharon, Pennsylvania.

Crowe Woodstock Company has opened a new electrical appliance business at 25 Pleasant Street, Worcester, Massachusetts.

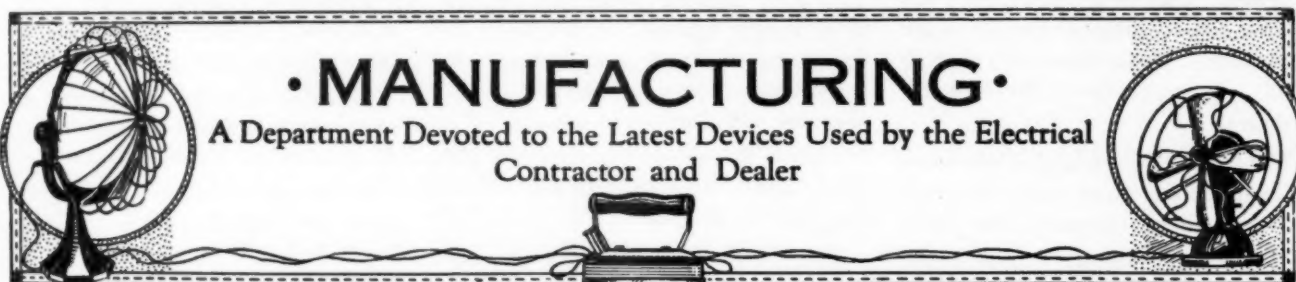
The Siegel Electric Company has opened another branch electrical contractor-dealer store at 126 Broadway, Brooklyn, New York.

A Difference

J. L. Wolf, secretary, National Council Lighting Fixture Manufacturers, says:

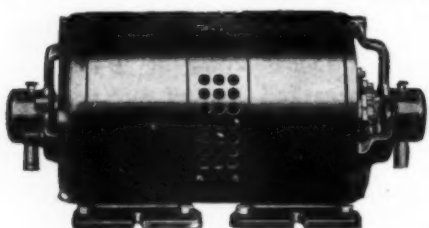
If I have a dollar and give it to you and you have a dollar and give it to me, we each still have a dollar. But, if I have an idea and give it to you and you have an idea and give it to me we each have two ideas.

This thought, while it has been expressed often, contains a truth that is ever new.



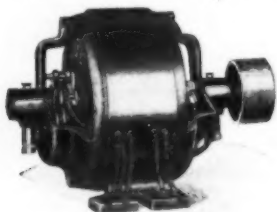
High Voltage Generators

The Robbins & Myers Company, Springfield, Ohio, has developed a new line of high voltage direct current generators and motor generator sets for service with wireless telephone outfits.



The generators are made in 500 and 1,000 volt types in capacities of 100, 200 and 500 watts, for use with vacuum tubes and for other special services.

The motor generator sets are furnished for operation on 110 or 220 volt,



25, 50 and 60 cycle, single phase, alternating current circuits, and on 32, 115 and 230 volt, direct current circuits.

They are of compact construction. The 500 volt outfits are the two-bearing, union ring type, while the 1,000 volt outfits are in the four-bearing, sub-base type.

The outfits are carefully balanced, insuring freedom from vibration and quiet operation. The large number of bars in the commutators of the generators does away with the objectionable hum which is present when generators are used which have a smaller number of bars in the commutator.

All generators are shunt wound. In the 500-volt types they have a single commutator. The 1,000-volt types have a commutator at each end of the generator, so arranged that the windings can be connected in series for 1,000 volts or in parallel for 500 volts as desired.

Generators of 500-6 volt and 500-12 volt type have two commutators and deliver 500 volts for charging the plate at one end and 6 or 12 volts for heating the filament at the other end, thus eliminating the necessity of providing a battery for heating the filament.

The generators equipped with pulleys for belt drive are the same in construction as those used with the motor-generator sets, and the description preceding applies to them also.

New Pressure Cooker

Anyone who is familiar with the convenience of cooking electrically will appreciate what a real economic innovation is the Sechrist Pressure Cooker, manufactured by the Albert Sechrist Manufacturing Company of Denver. With it an entire meal can be cooked with the same amount of current required to heat a flatiron or percolator.

This newly developed cooker rapidly



develops 259 degrees of dry steam heat under 20 pounds pressure which quickly penetrates the very center of the food, cooking every particle tender and digest-

ible in one third the usual time required. Patented superimposed inset pans permit several different foods to be cooked at the same time and the pressure prevents the flavors from mixing.

The three heat plug divides the current into high, medium and low. The cooker is started on high and when pressure reaches 20 pounds the rest of the cooking can be done on low or medium. The operating cost per hour is 3 cents on high, 2 cents on medium, and 1 cent on low, based on a cost of 5 cents per k.w.

The 10 and 12-quart models, the only ones electrically equipped at present, operate on a 110 volt circuit. If larger wattage or voltage is required, estimate of cost will be furnished on receipt of specifications.

New Fuse Card

The increased use of electrical appliances in the home has brought with it an increased demand for plug fuses by the householder. Considerable attention



has been given by fuse manufacturers during the past few months to business of this character.

To assist dealers in handling retail sales at a profit, the Weber Electric Company (Henry D. Sears, General Sales Agent, Boston, Mass.,) have designed the fuse card shown in the at-

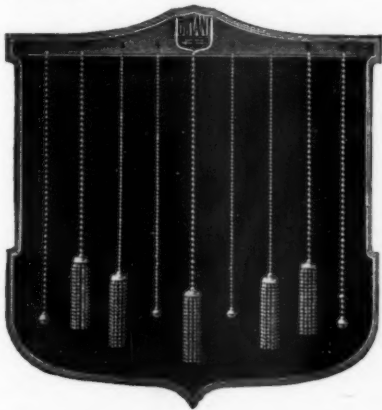
tached illustration. It is of substantial thickness, about six inches square, and designed to hold two 30 ampere fuses for the main service cutout and eight 10 ampere fuses for branch circuits.

These cards are furnished free to dealers, one being enclosed in each carton of 10 ampere and 30 ampere fuses, the thought being that certainly not more than twenty percent of all the fuses of those two capacities that are produced by the manufacturer are turned over at retail.

The card is provided with a brass eyelet so that it can be hung at the meter or other convenient place. This assures fuses being available when an emergency arises, and if more than half the holes are empty, it is a reminder to the householder that it is time to take the card to an electric shop and have it refilled.

Decorative Pull Chains

The Bryant Electric Company of Bridgeport, Conn., has developed a line of colored decorative pull chains to match the stands and shades of table and floor lamps.



These chains are eight inches long and the purchaser has the choice of chains with balls or chains with tassels on the ends. They are obtainable in various colors which lend a charming touch of color to the furnishings of a room.

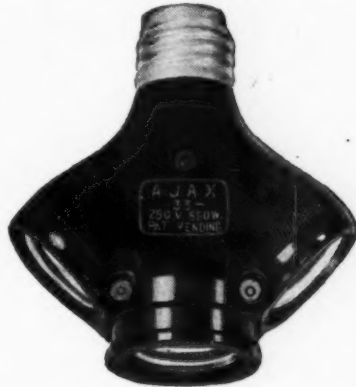
Plural Socket Plug

The Ajax Plural Socket Plug, manufactured by the Ajax Electric Specialty Company of St. Louis, is said to be a plug of a thousand uses. The manufacturers have spent much time in perfecting it in order to have every possible improvement embodied in its construction.

This plug is made of a heat resisting composition which allows the use of any style of standard lamp in either

socket without affecting the composition. The insulation is of great density which insures long life. When connected the main socket remains directly in line with the plug which allows the lamp to hang in position originally intended in fixture. A shade holder ring can be attached on the main socket to accommodate an ordinary weatherproof shade holder.

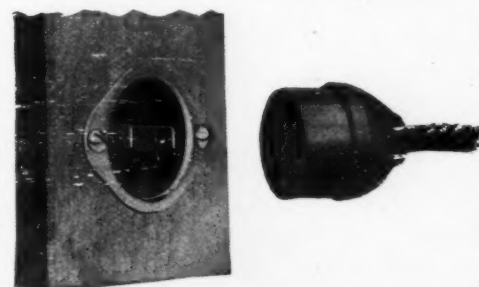
By virtue of its construction it can be put to a diversified number of uses.



When used in a baseboard receptacle with hinger doors with most standard receptacles the door will open sufficiently to allow a Plural Socket Plug with side sockets to be connected on a 45 degree angle which easily clears the door without removing it from the plate.

New Attaching Device

The Cutler-Hammer Manufacturing Company of Milwaukee has reversed the usual order of things in the design of the new No. 7859 Attaching Device.



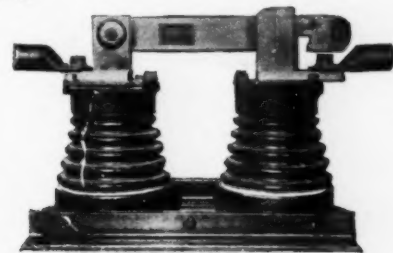
This is done to provide flush mounting and make a neater looking installation than is possible where the usual receptacle is mounted on the surface.

The illustration shows clearly the value of this type of attaching device on an electrically operated phonograph, for instance. The contact blades are not live except when the body is in place, and the contacts of the body are not exposed when disconnected. This device has a rating of 10 amperes, 250

volts. The diameter of the body is 1 1/16 inches.

Disconnecting Switches

The Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., recently developed and is now manufacturing an approved line of indoor disconnecting switches, known as Type S. These switches are of simple, rugged construction and are designed strictly in line with the latest engineering demands, conforming to the A. I. E. E. rule in regard to temperature rise and dielectric test.



A series of ratings has been selected with a view of covering standard field requirements. These switches are available in front-connected types as high as 66,000 volts, and rear-connected types as high as 25,000 volts, single throw, and double throw. Standard double-blade, selector type switches up to 25,000 volts have both break jaws front-connected, and hinge jaw rear-connected. Other desirable combinations may also be had.

Condensed Notes of Interest to the Trade

Free window display circulars, movie slides and newspaper cuts were supplied to the trade recently by the Hamilton Beach Manufacturing Company, Inc., Racine, Wisconsin, in an effort to stimulate sales.

The past year, the ninth in the history of the Western Electric Company's special evening classes, has broken all attendance records. More than 2,000 employees are registered in the educational courses being conducted at the many branches of the company throughout the country.

In order to help them build up a profitable holiday business, dealers were supplied with a self-easel counter stand, window poster and memorandum blank by the Benjamin Electric Manufacturing Company of Chicago.

"Chained Lightning" is the name of a new magazine published by the Arrow Electric Company of Hartford, Conn.,

the first issue of which appeared in November. This will be issued every other month in the interests of electragists, and will contain helpful suggestions for the improvement of their business.

A new catalog was recently issued by the Triplex Machine Tool Corporation of New York City setting forth the merits of the Triplex machine tool.

A new price and data book on wiring materials has just been issued by the Sprague Electric Works of New York City.

Announcement of changes and transfers in personnel of the Westinghouse Electric & Manufacturing Company has been made by officials of that company: H. A. Campe has been appointed manager of the small motor appliance section of the industrial department, succeeding V. M. Beeler, who has been transferred to the Springfield office, and H. B. Smith has been appointed manager of the domestic service section, succeeding Mr. Campe.

Shapiro & Aronson, Inc., of New York City announces with profound regret the death of its traveling representative, Charles P. Praitsching, on December 15. Mr. Praitsching had been connected with the company for nine years.

The Robbins & Myers Company, Springfield, Ohio, recently issued a new catalog on electric fans for alternating and direct current circuits.

The general offices of the Cote Brothers Mfg. Corp. of Chicago are now located in larger quarters at 1425 First National Bank Bldg., Chicago.

The Coffin-Perry Co., Huntington Bank Bldg., Columbus, O., has been appointed to represent Edwards & Company of New York City for the entire states of Ohio, Kentucky, West Virginia, and Western Pennsylvania.

The Boston office of the Cutler-Hammer Mfg. Co., has been moved from the Columbian Life Bldg. to the Harvey Bldg., Chancy Street, Boston. C. W. Yerger is manager.

"Safety Switches and Panel Boards" is the subject of a new catalog being distributed by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. This company has also issued circulars describing and illustrating the following subjects: The EV type of alternating current, vertical water wheel driven generators; arc welding for re-

pair and reclamation; general applications of arc welding, and arc welding for manufacturing processes; turbine generator units; luminous top holder socket reflector.

A new booklet "How to Secure a Prospect List" has been issued by The P. A. Geier Co., Cleveland, O., to give dealers and salesmen the benefit of its experience with and observation of successful dealer methods for seeking prospective buyers.

As of January 1, the Appleton Electric Company of Chicago took over the business of the Anderson Electric & Equipment Company, also of Chicago, manufacturers of "AutoReelites," "Reelites," and other products. These well known appliances will continue to be manufactured by the Appleton Electric Company in addition to its regular line of conduit fittings.

Announcement is made of the death of Charles F. Schneider, general factory superintendent of the Robbins & Myers Co., Springfield, O., on January 12. Mr. Schneider had a thorough practical knowledge of electrical manufacturing, and his loss will be keenly felt by his coworkers and the industry he has served so faithfully for almost twenty-five years.

Interests Merge

Manifesting their belief that good times have returned, two well known New York electrical jobbers have announced a merger of their interests as of January 1st.

The Fred W. L. Fullerton, Inc., and Domestic Electrical Supply Company, Inc., both of New York City, have



Fred W. L. Fullerton

merged and will be known as Fullerton Electrical Company, Inc. They have opened a completely equipped office, show room and warehouse at 230 West 17th Street, New York City, and a New Jersey branch at 232 Market Street, Newark, N. J.

They will continue their policy of operating as wholesalers, only distributing as they have in the past products of well known manufacturers making high class electrical appliances, wiring devices and lighting fixtures.

The managing personnel of the company are: Fred W. L. Fullerton, president and general manager; G. V. Weir, treasurer and assistant general manager; Franklin G. Burch, vice president, and Conrad J. Fairwood, secretary.

Mr. Fullerton has been identified with the electrical business since 1899, serving his apprenticeship with Sprague Electrical Company, Weston Electrical Instrument Company, Western Electric



G. V. Weir

Company, and Sibley & Pitman. In 1907 he organized The Fullerton-Case Company and became one of the charter members of The Electrical Supply Jobbers Association.

Mr. Weir, the treasurer of the merged interests, commenced his electrical career in 1911 with Agens & Company of Newark, N. J., and in 1919 organized the Domestic Electrical Supply Company, Inc. Prior to his entering the electrical field, Mr. Weir served eight years in the regular army. Outside of the electrical business his interests have been principally in military work.

There's no profit in regret unless it spurs one on to do something which will prevent a repetition of the occurrence which caused it.

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